

Something Old in Something New:

Constructions of European identity in the New World via conceptions of pain and the  
biocolonial tendencies of the *Materia Medica* used in Fray Agustín Farfán's *Tratado breve de  
medicina, y de todas las enfermedades*

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## **Abstract**

This thesis seeks to address an important problem in the historiography of early Mexican medicine. The problem being that evidence from Agustín Farfán's *Tratado Breve de Medicina* suggests that medicine in the New World was decidedly European, and not nearly as porous as some historians have suggested previously. Farfán used some of the New World therapeutics available to him, but he was sure to back up any recommendations of them—evidence that his readership (which was most likely European) had particular concerns about using New World therapeutics over familiar Old World elements—with assurances that he had used each before with great therapeutic success. There are hints, too, of a divide between practitioners—between those “with science” and those without—which had equally important implications for establishing practitioner hegemony.

In the representations of and discourse around pain in his work, Farfán painted an intriguing portrait of sixteenth-century Europeans' conceptions of pain. As opposed to our own modern conception of it, in its humoral pathology, pain was a by-product of bodily imbalance. As a result, bleedings and purgings—uncomfortable, and even painful, procedures themselves—were needed to help restore balance to the body. In this way, it meant that a practitioner had to hurt the patient in some way to set them along the path back to good health.

Lastly, Farfán showed the effects of biocolonialism on the sixteenth-century therapeutic landscape. Europeans sought to create a new Europe in the New World, and from some of the earliest voyages colonists brought with them the plants to make that possible. From Columbus to Cortés and beyond, colonists introduced a bounty of

European plants and herbs. So, given Farfán's expressed goal to write a medical treatise that used therapeutics easily found wherever one might live in *Nueva España*, the number of Old World elements that he prescribed is remarkable (and telling). Though, indeed, Farfán used some New World therapeutics, the evidence of the great effect of biocolonialism on the *materia medica* in the New World shows that Europeans, despite being so far from home, could still expect the same Old World brand of medicine, rather than a syncretic mix of Old World and New World styles.

## **Chapter 1**

Pedro García Farfán was born in Seville around the year 1532. He studied medicine at the University of Seville, receiving his degree in 1552, and there is further evidence to suggest that he spent some time at the University of Alcalá de Henares outside of Madrid, though it does not appear that he took a degree. Farfán immigrated to New Spain in 1557, working and gaining some renown for his skill as a physician in Mexico City and Oaxaca. He received his doctorate in medicine from the University of Mexico in 1567—historic antecedent to the National Autonomous University of Mexico (as well as the Pontifical University)—and practiced medicine in Mexico until his death in 1604. In 1569, he joined the Augustinian Order and changed his name from Pedro García to Agustín. Farfán wrote one of the first medical treatises published in the New World, *Tractado Breve de Anothomia y Chirurgia* in 1579, and published his *Tractado Brebe de Mediçina* in 1592.<sup>1</sup>

Farfán's work presents a unique perspective that challenges a historiography that largely supports the idea that, in colonial Mexico, the sharing of cultures and *materia medica* between Europeans and New World natives shaped a particular, syncretic New World medicine.<sup>2</sup> However, Farfán's legacy paints a picture—along both

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<sup>1</sup> MCN Biografías, "Farfán, Agustín (ca. 1532-1604)," <http://www.mcnbiografias.com/app-bio/do/show?key=farfan-fray-agustin>; Germán Somolinos d'Ardois, "Los médicos y los cirujanos," in *El Mestizaje Cultural y la Medicina Novohispana del Siglo XVI* (Valencia: Instituto de Estudios Documentales e Históricos sobre la Ciencia, 1996), pgs. 289-290.

Juan Comas, "Fray Agustín Farfán: el primer médico genuinamente mexicano," *América Indígena* 25, no. 3 (January 1965), pgs. 331-33.

<sup>2</sup> The authors that composed *El Mestizaje Cultural y la Medicina Novohispana del Siglo XVI* automatically suppose a cultural assimilation of Amerindians into the European cultural substrate and thus a syncretic trend in medicine. Furthermore, with no Native American medical text to follow—the famous *Libellus de Medicinalibus Indorum Herbis* was taken to Spain almost immediately after it was compiled (see Ch. 3, no. 7 below for more information)—and the European hesitance to officially adopt New World substances into the *materia medica*, there was no real tradition for Europeans to adopt. Since colonists mostly occupied the new cities of the Americas and Amerindians largely lived on the metropolitan peripheries

professional and (to a subtler extent) racial lines—that shows a divided world of practitioners and consumers in the medical market. Establishing a context for his potential readership, one finds that Farfán—and despite the adoption of a relative minority of New World elements into his *materia medica*—practiced and disseminated a particularly European style of medicine. At worst, in relation to the historiographically supported notion that there was a successful, uniform syncretic movement that developed a unique, diverse New World style of medicine, Farfán is a contradiction. At best, I believe that Farfán represents an entrenched position that two distinct styles of medicine, at polarized ends, were practiced in the New World, and that these styles were divided along professional and ethnic lines.

Though Farfán clung to his European identity—and was thus an adherent to the Galeno-Hippocratic canon—he was willing to experiment new forms of treatment. Drs. Chico-Ponce de León, Ortiz-Monasterio, and Tutino examine the origins of plastic surgery in Mexico through Farfán’s *Tractado Breve de Anathomia y Chirurgia*.<sup>3</sup> They show Farfán’s immense knowledge of nasal reconstruction, noting in particular his familiarity with popular practice among Mediterranean empirics—re-crafting the nose

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and in the American “wilderness,” contact between Old and New World practitioners—traditionally and philosophically speaking—would have been limited. *Curanderos* (see below), as described by Naomí Quezada in “El curandero colonial, representante de una mezcla de culturas (pgs. 313-27),” were almost defined by their syncretic tendencies, adopting African curative practices into their repertoire—which is where the work of the famed Mexican anthropologist, Gonzalo Aguirre Beltrán, comes in. Germán Somolinos d’Ardois makes subtle connections between early “Mexican” and the later basis of a separate culture at large in his chapter, “A manera de colofón: lo mexicano en la medicina (pgs. 348-351).” In “Los médicos indígenas frente a la medicina europea (pgs.132-53),” Carlos Viesca Treviño argues that indigenous healers practiced alongside Europeans, and that there was even a tacit acceptance of that dualism. Germán Somolinos d’Ardois even declares that Farfán demonstrated the identity of Mexican medicine, citing specifically his use of readily available plants and New World therapeutics. However, further study suggests otherwise. Juan Comas, José Luis Fresquet Febrer, and José María López-Piñero, eds., *El Mestizaje Cultural y la Medicina Novohispana del Siglo XVI* (Valencia: Instituto de Estudios Documentales e Históricos sobre la Ciencia, 1996).

<sup>3</sup> Fernando Chico-Ponce de León, Fernando Ortiz-Monasterio, and Matteo Tutino, “The Dawn of Plastic Surgery in Mexico: XVIth Century,” pgs. 2025-2031.

using an arm flap, and binding the arm to the face for eighty days to hold the re-crafted nose in place—(though he did not recommend it) despite his classic Galenic education. The descriptions were also remarkably ahead of their time—Gaspari Tagliacozzi outlined a similar procedure in his *De Curtorum Chirurgia per Insitionem*, published eighteen years later in 1597. His *Anathomia y Chirurgia* contained one of the most detailed anatomical presentations published in the New World at the time, according to the authors. They conclude that though Farfán proved supremely knowledgeable on the subject—the traditional operation as well as contemporary developments—it is not likely that he ever actually performed one of those surgeries. Farfán’s concern with maintaining aesthetic integrity was remarkably similar to the intent of many modern reconstructive surgeries; these procedures were not simple scalpel jobs, rather they were surgeries meant to restore quality of life (via restored aesthetic quality). In this light we see Farfán as one of the most important physicians in the New World. He made two great contributions to contemporary scholarship in his *Anathomia y Chirurgia* and *Tractado Brebe de Medicina*, and was one of the leading European voices in New World medicine.<sup>4</sup>

In the sixteenth century New World medicine was overwhelmingly European; native cultural assimilation was still a ways off—at least in terms of learned medicine—and European physicians used the New World *materia medica* selectively—though Farfán was the first physician to introduce cocoa into the therapeutic arsenal.<sup>5</sup> The

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<sup>4</sup> Fernando Chico-Ponce de León, Fernando Ortiz-Monasterio, and Matteo Tutino, “The Dawn of Plastic Surgery in Mexico: XVIth Century,” pgs. 2025; 2027-30.

U.S. National Library of Medicine, “A principios guías médicas en la Nueva España,” *History of Medicine*, <https://www.nlm.nih.gov/exhibition/exvotos/guidesespanol.html>.

<sup>5</sup> U.S. National Library of Medicine, “A principios guías médicas en la Nueva España.”

overwhelming absence of curricular documentation from the early Faculty of Medicine in the historic University of Mexico (*Real y Pontificia Universidad de México*, 1551-1865) has left much to be desired in forming a better idea of what its earliest graduates learned, at least in determining how different (or similar) education in the New World was compared to its Old World counterpart.<sup>6</sup> That being said, we know that Farfán was in a minority of European-born students who graduated from the Faculty, as most were born in Mexico or immigrated at an early age and were educated in Mexico. So, as a Spaniard (one who already had already studied medicine at one of the three Spanish universities privileged with the power to grant medical degrees—these included the Universities of Salamanca, Valladolid, and Alcalá de Henares) who received his doctorate from the University, he was a special case.<sup>7</sup>

Spain itself had a curious history of medicine. It was one of the few parts of Europe to be permanently occupied by the Muslims (comprised of Arabs and North African Berbers; 711-1492). As such, and given the presence of a large Jewish population throughout the territory before their expulsion in 1492, Spain enjoyed a

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<sup>6</sup> Gonzalo Aguirre Beltrán, *Historia General de la Medicina en México: Medicina Novohispana, vol. II* (Ciudad de México: Academia Nacional de Medicina, Universidad Nacional Autónoma de México, Facultad de Medicina, 1990), pg. 291. Studying at Alcalá de Henares—and to a lesser extent, Seville, which, along with the Universities of Toledo and Granada, formed the *universidades menores* that “granted arts degrees in general studies”—before emigrating to the New World, Farfán would have already been affected by much of the regulations Philip II subjected medical faculties to in the mid-sixteenth century—as well as earlier class and practical training requirements imposed by Philip’s father, Charles V in the 1530s. Municipal concerns over the improper training and murky certification of some physicians--those granted limited licensure to practice “under the advice of a physician” until they gained enough experience--caused Philip II to increase regulation of university curriculum—making it more difficult—and changing medicine from a two-year program to four years. Michele Clouse, *Medicine, Government and Public Health in Philip II’s Spain* (Burlington, VT: Ashgate Publishing, 2013), pgs. 45-7; 49.

<sup>7</sup> “En su mayoría desconocen Europa, casi todos han nacido en México y alguno, como Juan de Cárdenas, de origen sevillano, llega todavía muy niño a estas tierras y estudia aquí. En compañía de este grupo mexicano por origen y formación tenemos que considerar un pequeño número de médicos venidos de España en esos mismos años, incorporados a la profesión en México, pero, por regla general, de manera esporádica y transitoria.” Ibid. pg. 291.



diverse body of medical study and practice. From Averroes and Avenzoar to Maimonides and Arnau de Vilanova, the historic kingdoms that make up modern Spain had a rich history, replete with famed physicians—treating royalty and peasantry alike. After the loss of Ancient Greek and Roman medical texts during Europe’s “Dark Ages,” Spain, at Toledo, along with Southern Italy became an important point from which those classical works, preserved by the Arabs and carried to Europe by the Umayyad advance, were re-disseminated through the continent. Medicine, then, was a collaborative experience, shared between the resident Christian, Jewish, and Muslim populations in the Iberian Peninsula; and, unlike the rest of Europe, these non-Christian influences persisted into the sixteenth century.<sup>8</sup>

Spaniards—and the Portuguese, too—encountered unique forces that shaped the medical landscape in both the Old World and the New. The discovery of the New World opened up a whole new world of possibilities in medicine—in particular, a unique *materia medica*. From the first expeditions, the New World flora fascinated physicians and explorers alike, and the eventual incorporation of New World elements would revolutionize medicine. The year 1492 had even more implications for history—in Spanish history it marked the transition from the medieval period to the early modern era, and in medicine it marked the destruction of the Old World vacuum (that is, the relative isolation of European medicine). Through the sixteenth and seventeenth centuries, the discovery of New World flora and its pharmacological identity would

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<sup>8</sup> The Jews were given an ultimatum to convert to Christianity or leave Spain; those who converted and stayed were called *conversos*, and many of those who fled rather than convert found their way to Portugal, where they were given the same ultimatum a matter of months after arriving, at which point many emigrated to Eastern Europe. The last Muslim kingdom in the Peninsula, the Kingdom of Granada, was conquered by the Catholic Monarchs, Ferdinand and Isabella, in 1492, and the converted population, *moriscos*, was expelled in 1609—this marked the end of a disastrous relocation campaign, moving *moriscos* out of the South of Spain into various regions.

cause many to question the canon of the ancient physicians whose works had guided practitioners in the Old World through more than a thousand years of practice<sup>9</sup>—however, Farfán was not one of those. The discovery of the New World in 1492 laid the foundation for the eventual destruction of Galen and Hippocrates authority in medicine and Dioscorides in pharmacology, though the path to that ultimate destruction and the birth of modern scientific medicine was long and did not really end until the latter half of the nineteenth century.

European medicine worked to a particular therapeutic end: to balance the natural heat and cold of the body. Homeostasis meant health, but an imbalance in one direction or the other meant illness—the form of which depended on the respective ends of the spectrum. This system was further complicated by humoral complexions governed by the dominant presence of one of the four humors: blood (hot and wet; sanguine), yellow bile (hot and dry; choleric), black bile (cold and dry; melancholy), or phlegm (cold and wet; phlegmatic). Complexions were generally an innate status, but environmental factors could influence or exacerbate these. For example, the elderly, no matter what their complexion through their life, became phlegmatic as they aged. Though not a general rule, people who lived in climates that correspond to any of the respective hot-cold, wet-dry binaries were subject to the influence of the climate on humoral balance. Because of these many various complexions—perceived differences in how an individual should maintain their respective health—there was no real conception of a general treatment of an illness or imbalance. Rather, the physician

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<sup>9</sup> See Roy Porter, *Blood and Guts: A Concise History of Medicine* (

needed to take into account the complexion, beyond what the patient was suffering from.

Galenic—semi-interchangeable with “humoral”—therapy progressed from changes in diet and other regimen (in some cases attempting to eliminate environmental variables), to the prescription of therapeutics (herbal medicines, depending on their makeup—whether they were taken by themselves or in tandem with another substance—simple or complex), and lastly to the undertaking of a surgical procedure if all else failed.<sup>10</sup> This practice of medicine was extremely conservative, and avoided invasive undertakings at all costs—with good reason, given the high mortality rate due to infection of those who had survived the possible initial brush with death under the surgeon’s knife.

It is important, then, to address Farfán’s explicitly expressed goal in publishing his book: to reach the masses that did not have access to a university-trained physician. There had always been a rift between university or classically trained physicians and empirics, and this conflict was no less pronounced than in any other period (or in any other place). However, Farfán seemed to display a genuine concern for his reader’s health—at the very least (and perhaps not so genuinely), he had a financial stake in the perceived efficacy of his book—noting the obligation that he and his colleagues owed to provide treatment to their patients, particularly those who lived outside the traditional

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<sup>10</sup> The famed medieval Aragonese physician Arnau de Vilanova (c. 1240-1314) is quoted in one of his lectures at the University of Montpellier saying that the physician must always look to isolate the most easily-identifiable variables and remedy them—if a man suffering from debilitating headaches lives within close proximity to a church whose bells chime the hour or if there is a dog that barks incessantly, preventing these occurrences or at the very least limiting their potential effect on the patient in some way, is the first step in treatment. Arnau de Vilanova, “Repitition super canonem ‘Vita brevis,’” in Faith Wallis, *Medieval Medicine: A Reader* (Toronto: University of Toronto Press, 2010), pgs. 216-17. It is worth noting, in reference to the prescription of therapeutics, that foodstuffs were, in a way, medicines with specific effects.

geographical bounds of formal physicians.<sup>11</sup> However, he parlayed this sentiment into his professional pride and allegiances. He wrote that a “physician without luck is the same as one [a physician] without science.”<sup>12</sup> Farfán perceived that there was an intrinsic difference between physicians who had studied the science of medicine—that is, taken a degree and were, in that way, vested with authority to treat patients—and those who had not, which is to say that the latter was hardly a physician at all. As such, Farfán believed that he and his contemporaries held the key to the medical practice because they had the most complete understanding of the workings of the body and disorder pathology that guided them in treating their potential patients with the highest relative degree of efficacy.

Within the contemporary context this can be read against the practitioner binary that existed. *Curanderos*—medicine men or shamans—were the absolute antithesis of Farfán’s “scientific” ideal. Often men—though there were female practitioners—*curanderos* were traditionally Amerindians, or of some marginalized ethnic origin. Their practice was rooted particularly in magic, and were often sought out to treat problems

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<sup>11</sup> “Esta obligacion tienen los Medicos, que curan en los Pueblos...” Agustín Farfán, *Tratado Breve de Medicina, y de todas las Enfermedades, que à cada passo se ofrecen* (En México: en casa de Pedro Ocharte, 1592), pg. 8. I have used Brown University’s digitized copy of the book, and page numbers used correspond to the page numbers of the PDF file for ease of use. The catalog record on Brown’s website notes that this copy is missing the title page and imprint information, so they used the information from the first edition. As such their record reads, “Tratado brebe de medicina; y de todas las enfermedades...[Printed] En México: Con priuilegio en casa de Pedro Ocharte, De. 1592. años.” Instead, I have used the title included on the beginning of the first chapter—though I have included the printing information included on the Brown catalog record. Also, there is proof that the copy I used was a subsequent edition and not the 1592. “Y aunque esta es segunda impression, no guardo el orden primero, sino voy escriuiendo, como me paresce, que mas conuiene. Y assi trate en este libro primero la cura de las bubas, como parte muy principal de medicina. Añado muchas cosas muy necesarias à la salud de todos... (202).” The MCN Biografías cites the second edition of Farfán’s work as “reedición con el mismo título—*Tractado breve*...—(México; Empreanta de Geronymo Balli, por Cornelio Adriano Cesar, 1610).” However, since there is no way to verify this exactly in the copy I used, I will continue to use the printing information included in the Brown catalog entry.

<sup>12</sup> “Y lo que díze los maestros de nra arte y ciencia, oportet medicum esse bene fortunatum. Por q medico sin ventura, casi es tanto como sin ciencia.” Agustín Farfán, *Breue Tratado...*, pg. 5.

considered supernatural in nature.<sup>13</sup> Unlike formal physicians, and as pseudo-sorcerers, they possessed the power to restore health, but also to take it away.<sup>14</sup> It is also important to note that many of their clients were of mixed, *mestizo* origin—though, only on the basis that would have made their potential subscription to Farfán and traditional medicine more nuanced and complex.<sup>15</sup> There existed a binary, then, that differentiated practitioners from one another, and to some extent, their patient bases were subject to a loosely constructed binary—a fluid understanding that, perhaps, if one did not work, then one might try the other (though it seems most likely that an establishment subscriber would be the only one to get a second opinion from a non-mainstream practitioner). Farfán and his contemporaries were largely Europeans, while *curanderos* were, traditionally, Amerindians or other marginalized folk—including women, who, apart from midwives (whose practice remained largely informal until the medicalization of gynecology and obstetrics in the late-eighteenth and nineteenth centuries), were absent from the European practitioner landscape.<sup>16</sup> Farfán practiced an establishment medicine that assumed primacy—and, though porous to a degree, was

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<sup>13</sup> “Si bien eran las personas más indicadas para solucionar las enfermedades consideradas como de origen sobrenatural por medio de complicadas ceremonias mágicas, también los había puramente empíricos.” Naomi Quezada, “El curandero colonial, representante de una mezcla de culturas,” in *El Mestizaje Cultural*, pg. 314

<sup>14</sup> “‘El curandero, en consecuencia, no sólo dispensa salud, sino que, además, tiene la capacidad para provocar la enfermedad y la muerte’; es decir, al mismo tiempo cura y maleficia.” Ibid., pg. 315.

<sup>15</sup> This is not to suggest absolute exclusivity between the worlds of “scientific” medicine and occasionally fantastical “empirical” medicine. Rather, there was a significant crossover between the two; European (and colonial constituent culture) was steeped in magical lore—from infamous witch hunts that captivated communities across the continent and beyond, to the fear that the venomous glare of an old woman was exactly that—deadly. However, particularly for subscribers to traditional Galenic medicine, people might reach out to magic and sorcery in times of great need, or when all traditional avenues had failed them.

<sup>16</sup> See the curious case of Eleno Céspedes, an intersex surgeon who was tried by the Inquisition for a myriad of crimes, for a unique example of a non-traditional-gendered practitioner. Francisco Vázquez García and Richard Cleminson, “Subjectivities in Transition: Gender and Sexual Identities in Cases of ‘Sex-Change’ and ‘Hermaphroditism’ in Spain, c. 1500-1800,” *History of Science* 48, no. 1 (March 2010), pgs. 5-6.

largely content with practicing as a philosophy isolated from American, pre-Columbian medicine—particularly compared to *curanderismo*, which was a syncretic mix of traditional American and African medicines.<sup>17</sup> Perhaps the most definitive difference between the two poles was the use and acceptance of the humoral pathology versus unorthodox appeals to sorcery and witchcraft, which divided Farfán and his contemporaries from those *sin ciencia*.

Farfán presented, then, a subtly “us versus them” narrative in the appeals to his readership. He clearly intended for his book to be used by those who were outside the geographical range of practicing university-trained physicians. “Physicians,” Farfán wrote, “can read my book to know what the great authors wrote... But I do not write for them: rather for those that are where they [physicians] are not. With God’s help it will be clear, so that all understand me, and the remedies will be homemade, so that they can find [ingredients] and make [the remedies].”<sup>18</sup> Most doctors would have lived in cities or large villages—“to enjoy the economic benefits afforded them” by their profession—so many of Farfán’s potential readers might have found themselves tens of miles away from the nearest formal physician.<sup>19</sup> Those that practiced in villages also had a professional obligation to provide adequate care to their potential patients.

*Boticarios* or apothecaries—though there were fundamental differences between their

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<sup>17</sup> This assumes a particular Eurocentrism, but, in many cases in which New World therapeutics were adopted into the European *materia medica*—at least to some extent (be it widespread or isolated)—they were adopted under the particular understanding or perception that they were, in some way, equivalent to a familiar Old World equivalent or cognate. (See Chapter 3 for further discussion)

<sup>18</sup> “Los que son Medicos, pueden leer este mi tratado, pore estar en el resolutio, lo q los Autores mas graues escriuió à la larga. No escriuo para ellos: sino para los q está, donde no los ay. Procurare con el fauor Diuino ser claro, para que todos me entiendan, y los remedios seran los mas caseros, porque se puedan hallar y hazer.” Farfán, *Tratado Breve...*, pgs. 7-8.

<sup>19</sup> “Los médicos preferían residir en los grandes centros de población española por los beneficios económicos que les reportaba pues la mayor parte de la población de otros grupos sociales no estaban en condiciones de cubrir sus honorarios.” *El Mestizaje Cultural...*, pg. 313.

practice and that of a physician (that is, a physician was naturally a healer and an apothecary made the remedies that made that healing possible)—were subjected, in tandem with their counterparts, to provide health for their potential patients.<sup>20</sup> In this context, Farfán placed a premium on providing care (or at least a how-to-guide for it) so that those who were outside of the area of a practicing physician would not have to resort to the services of a non-university-trained practitioner—if there was a practitioner they could turn to at all. He even included regular instructions for the preparation of remedies for those who did not have access to apothecary services either.<sup>21</sup>

Farfán was careful too, to reassure his readers who might be uncomfortable with a particular treatment—especially when he was recommending New World elements—that he had sufficiently tested each item and that he had full confidence in their therapeutic efficacy. In almost all cases he placed a premium on Old World items, and if those were not available then, if an acceptable New World equivalent existed, he prescribed the best substitute. Many of the purges were of *cañafistula* and *matlaliztic* root, though if either were unavailable Farfán recommended that his readers substitute the New World *mechoacan* root, because it performed the same function as the previous

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<sup>20</sup> “Esta obligacion tienen los Medicos, que curan en los Pueblos, aunq aya Boticas, y los que estan, donde no las ay, la tienen major. Porque no les haze Medicos la Botica, sino lo que estudiaron, y la practica que tienen de curar. Espero en Dios que hará los remedios, adonde quiera que esté con mucha facilidad, como lo hazian los Antiguos en todas las ocasiones.” Farfán, *Tratado Breve...*, pg. 8.

<sup>21</sup> “Los q no tiené botica, purguése có quatro onças d caña fistola; y el peso de un tomín de poluos de larayz del Matlaliztic, q son muy seguros. Y si no los huuiere, seá de los de Mechoacá. Y quádo no ay mas q el Mechoacá tomen el peso de ocho tomines de los poluos y a las quatro de la tarde los echen é mojo en agua cozida có Ceuada ò con Orocuz y a las quatro de la mañana los cuelen y esprimá bié y eché al agua un poco de Açucar y beba la.” Farfán, *Tratado Breve...*, pgs. 56-57.

two.<sup>22</sup> Almost as frequently, though, Farfán told his patients outright that there was no need not to trust what he was prescribing. Writing about the *cocolmecatl*—or “China”—root, Farfán entreated his readers to trust him because of the great health benefits the root would bring to those who imbibed it saying, “If you take it, trust in me and believe me that you will have with [the root] more health, because I have experimented [with] it.”<sup>23</sup>

Since one can assume that Farfán’s intended audience was to some degree European—that is, included creoles and *mestizos*—it is pertinent to weigh some of the numbers of his potential readership. Between 1570 and 1646, New Spain’s non-indigenous population—which included Europeans (of the different *casta* iterations) and Africans—grew by almost twenty-five percent from 1.3% of the total population to 25.9%, 3,380,012 total inhabitants to 1,712,615—a startling figure that shows the devastating effect of Old World diseases on the indigenous population.<sup>24</sup> Farfán’s book was not published until 1592, and assuming that most Africans would not have been literate in Castilian, the figures do not provide an exact representation of how many potential European readers Farfán may have had in his time. That being said, Johanna Faulhaber offers specific population breakdowns for those survey years. In 1570, of the

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<sup>22</sup> “Si no ay cañafistola, ni matlaliztic, tome del mechoacán....” Farfán, *Tratado Breve...*, pg. 133; “Y si no la [cañafistola] tiene, con dos tomines de peso de poluos del Matlaliztic, ò cólos poluos de Mechoacan en infusió, como muchas vezes he dicho.” Ibid., pg. 166; “Quien no alcançare Cañafistola, tome ocho tomines de peso de poluos de Mechoacan....” Ibid., pg. 158. *Matlaliztic* was a new world plant (its Nahuatl name meant “blue flower”)—which Farfán apparently felt comfortable prescribing as a purgative regularly—but there is some question as to whether or not *cañafistola* was an Old World product or from the New World. (See Chapter 3 below for discussion) “Matlalin,” *Nahuatl Dictionary* (Wired Humanities Project, University of Oregon) <http://whp.uoregon.edu/dictionaries/nahuatl/index.lasso>.

<sup>23</sup> “Si la tomaré, fiense de mi, y crean me que, tendran có ella mas salud, porque la he experimentado.” Farfán *Tratado Breve...*, pg. 422.

<sup>24</sup> Table 5.1, “Porcentajes de la población *no indígena* en la Nueva España,” in Johanna Faulhaber, “El mestizaje biológico en la época colonial,” *El Mestizaje Cultural...*, pg. 39.



43,152 non-indigenous peoples, 17,711 (0.5% of the total population and 41% of the non-indigenous population) were *blancos*, or white Europeans and 2,437 (0.1% of the total population and 5.7% of the non-indigenous population) were *mestizos*—the rest (23,004) were Africans (0.7% of the total population and 53.3% of the non-indigenous population).<sup>25</sup> In 1646 there were 182,348 white Europeans (10.7% of the total population and 41.2% of the non-indigenous population) and 109,042 *mestizos* (6.4% of the total population and 24.6% of the non-indigenous population). These numbers suggest the total possible size of Farfán’s potential readership, though they do not offer specific demographic data showing those who would have been able to afford to buy his book. However, together with the knowledge that three editions of his work were published, these numbers show the demographics of an audience among which Farfán was immensely popular.<sup>26</sup>

The collective identity of Farfán’s readership would have been determined by an intrinsic set of values and beliefs regarding health and illness that would compel them to read and comprehend his work—on the other side of that, there would have been those whose values did not match Farfán’s and thus would not have read his book as a result. This hinges on two important ideas from Nicholas Abercrombie and Bryan Turner’s “Dominant Ideology Thesis.”<sup>27</sup> First, the assumption that, “At the very least, the theory must assume that there is a common culture in which all classes share and that

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<sup>25</sup> Table 5.3, “La integración racial de la población de la Nueva España durante la época colonial,” *El Mestizaje Cultural...*, pg. 42.

<sup>26</sup> Germán Somolinos d’Ardois, “Los medicos y cirujanos,” in *El Mestizaje Cultural...*, pg. 290.

<sup>27</sup> Nicholas Abercrombie and Bryan Turner, “The Dominant Ideology Thesis,” *The British Journal of Sociology* 29, no. 2 (June 1978), pgs. 149-170.

the content and themes of that common culture are dictated by the dominant class.”<sup>28</sup>

Medical theory, then, did not share a common culture, and there was an active conflict between dominant mainstream and “submissive” periphery. However, the clear, particular difference between the two poles, in terms of medical theory, came in the theory of medical practice. Farfán followed strict Galenic code throughout his work, and he approached each disorder rationally. At times, Farfán appealed to divine mercy, or state that spiritual purity and harmony with God was the first prudent course of action, before delivering his “scientific” recommendation. However, these supplications for divine intervention as part of the course of treatment were perhaps more formality (though there is no doubt Farfán would have believed that divine intervention could cure a patient of their ills) than a literal step in a plan of treatment. Also, given the contemporary climate, these divine invocations would have been part of the mainstream culture, rather than instances of peripheral witchcraft or sorcery. *Curanderos*’, then, given the practice of witchcraft and “un-scientific” medicine, were on the other end of that spectrum.

This is all to illustrate the differences between the medical theories and practices, and to lead to the second idea from “The Dominant Ideology Theory”: that, where there was not an established, dominant social hegemony, the “subordinate” class would not necessarily believe (subscribe to, or share the practice of) the same ideals as the “dominant” class. This is supported by both the divergence in medical theories that existed in colonial Mexico and the fluidity of race and racial conception in Mexico at the time—and the racial component suggests that there were respective communities that

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<sup>28</sup> Nicholas Abercrombie and Bryan Turner, “The Dominant Ideology Thesis,” pg. 153, cited in Edward Behrend-Martínez, *Unfit for Marriage* (Reno, NV: University of Nevada Press, 2007), pg. 69.

individuals lived with (despite some degree of mobility between the two), but communities that had their own intrinsic values which formed societal pillars.<sup>29</sup> From early on, Europeans established a caste system, one nominally based on the ethnic origin of one's parents, though in actuality was determined by public recognition of an individual's "whiteness"—here, literally the color of one's skin, rather than the abstraction of a socio-racial identity. Spaniards painstakingly catalogued the different races of offspring produced by racially/ethnically different parents. For example, a child produced by a union between a European and an Amerindian was a *mestizo*.<sup>30</sup> The child of a *mestizo* and a Spaniard would have been a *castizo*.<sup>31</sup> Or a child, whose parents were Spanish and African, respectively, would have been a *mulato*.<sup>32</sup>

Conceptions of diet had radical implications for race. Many colonizers believed that Amerindians were the descendants of ancient Iberians who sailed west from the Peninsula to escape the Muslim onslaught. However, because they were deprived of traditional Iberian food—which gave real meaning to “you are what you eat”—those ancient emigrants lost their natural choleric complexion—which, in itself, was an interesting point of nationalist pride—and devolved to the phlegmatic complexion seen in New World inhabitants. Rebecca Earle focuses on how colonizers viewed the body as

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<sup>29</sup> Jorge Cañizares-Esguerra supports that the seventeenth-century New World intellectual elite constructed one of the first modern models of race. In contrast to the accepted Galenic understanding that stars and constellations defined many human characteristics—noting particularly that there were different constellations in the New World than there were in the Old—and supposed that Europeans and New World natives were radically different both physically and mentally. Jorge Cañizares-Esguerra, *Nature, Empire, and Nation: Explorations of the History of Science in the Iberian World* (Stanford, CA: Stanford University Press, 2006), pgs. 64-96. See below for discussion of Rebecca Earle's theory.

<sup>30</sup> Carlos López Beltrán, “Hippocratic Bodies: Temperament and *Castas* in Spanish America (1570-1820)” *Journal of Spanish Cultural Studies* 8, no. 2 (July 2007), pg. 259.

<sup>31</sup> *Ibid.*, pg. 260.

<sup>32</sup> *Ibid.*, pg. 262. José de Ibarra and Andrés Islas' paintings show the particular importance of the mother's race, as she was often the determining factor in the relative “whiteness” of the child. (It should be noted that these are eighteenth-century paintings, and represent more a chronological spectrum of racial conception.)

being intrinsically porous, and just as in other avenues of Galenic medicine the environment was understood to have extreme effects on a person's body, so food shaped an individual's identity, even so far as to determine some racial elements. For example, if a Spaniard ate a largely American diet then he or she might lose their natural "Spanish" race or complexion. On the other hand, if an Amerindian adopted a Spanish diet, they might regain, so to speak, racial aspects of their former race.<sup>33</sup>

From the idea of race came questions about what defined race. Within this context, there is evidence to suggest that Farfán subscribed to this idea of fundamental difference between Europeans and natives. Despite dedicating the last third of his book to the diagnosis and treatment of fevers, Farfán wrote a specific chapter on how to treat natives for fevers. The "chapter" was less than a page long, but it supposed a different course of treatment because of the pseudo-biological differences between natives and Europeans. Although Farfán's first step in treating fevers (after confessing the patient so that they might be spiritually health in case of the worst) was to bleed the patient,<sup>34</sup> he prescribed something different for natives. Despite the fact that Farfán believed that fevers came from corrupted blood—and the patient was bled to rid the patient of that blood—he recommended that natives take ground green or dry verbena mixed in warm water for three or four days (while fasting) to purge themselves.<sup>35</sup> Farfán believed that,

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<sup>33</sup> Rebecca Earle, "'If You Eat Their Food': Diets and Bodies in Early Colonial Spanish America" *American Historical Review* June 2010, pgs. 688-713; Rebecca Earle, *The Body of the Conquistador: Food, Race and the Colonial Experience in Spanish America, 1492-1700* (New York: Cambridge University Press, 2012), pgs. 156-187. (See Chapter 3 for further discussion)

<sup>34</sup> "Lo primero y principal que el medico deue mandar en esta calentura y en todas las de mas enfermedades peligrosas (como otras vezes he dicho) es: que se confiese el enfermo.... Lo Segundo q el medico deue hazer es començar la cura por sangrias, por que con ellas se abren las vías, y desopilan los poros del cuerpo, y las venas llenas de sangre, quedan descargadas." Farfán, *Tratado Breve...*, pgs. 485-86.

<sup>35</sup> "Cosa es muy esperimentada entre los Indios de esta tierra, que vn manojo de Berbena verde ô seca muy molido y desatado en agua tibia, y bebiendolo tres dias (en aiunas) ô quarto, les haze vomitar y

even when they were healthy, natives did not eat much—they ate nothing when they were sick, he thought—and the atole—a maize porridge eaten by the Aztecs and Mayans, and many Amerindians after the conquest—they ate did not offer them much nutrition in the first place.<sup>36</sup> Different bodies, then, required different courses of treatment. Farfán included a round of purgations after the initial bleeding, but that still did not necessarily explain how the corrupted blood exited the patient's system. Humoralists believed that ingested food first went to the liver where it became one of the four humors. They thought that from there the most nourishing humor, blood, along with its counterparts circulated throughout the body.<sup>37</sup> Then, was Farfán's understanding that purging Amerindians of the little food that they did eat, which it seems he did not believe was fully nutritious, would allow the body to run its course and create new healthy blood? Attempting to inject modern logic into the intrinsically flawed historic understanding is, when misapplied, anachronistic, but here it teases out: first, that Farfán understood Europeans' and natives' bodies to be fundamentally different; and second, that perhaps he did not fully understand the difference between those bodies. He made no claim that he had specific experience prescribing this treatment to Indians himself as their practitioner, rather it was knowledge acquired secondhand and disseminated in those same terms—note that he wrote, “[This

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sudar. Y recibíendola por melezina desatada en agua miel, les haze purgar muy bien. Y con estas vacuaciones se les quitan las calenturas, como lo vera el que lo experimentare.” Ibid., pg. 364.

<sup>36</sup> “Y verdaderaméte los Indios no sufren muchas sangrias, porque en salud comen poco, y enfermos casi nada yo lo he visto muchas vezes, y passa assi é todos ellos q les poné alli el Atole, y no saben dezir al enfermo come ò bebe. Y cierto que los mas dellos se mueren traspasados de hábre y de sed.” Ibid. For atole, see: Jacques Soustelle, *Daily Life of the Aztecs: On the Eve of the Spanish Conquest* (Stanford, CA: Stanford University Press, 1992; Sophie Coe, *America's First Cuisines* (Austin, TX: University of Texas Press, 1994), pgs. 117-18; 123.

<sup>37</sup> Nancy Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (Chicago: University of Chicago Press, 1990), pg. 106.

treatment] is experimented among the Indians of this land,” rather than his usual “I have seen and/or experimented...” to denote a particular treatment he had firsthand experience with.<sup>38</sup>

In the end, it becomes clear that Farfán practiced within a strict professional boundary (one that had existed for millennia) that defined clear “good” doctors from “bad” doctors. In a binary that grouped university-trained practitioners—those who believed themselves practicing real science—and pitted them against those of less “scientific” pedigrees, those formal practitioners and the less orthodox *curanderos* represented the respective opposite ends of the healer spectrum. In his mind, Farfán’s claims of experience and education represented his professional legitimacy, while his counterparts represented a threat to his practice and the health of others. Farfán also revealed conceptions of subtle racial differences that, in a way, came to represent the binary, too. Different bodies meant different types of medicine, and for those that lived beyond the geographical reaches of the “mainstream” practitioner community they needed a particular medical treatise that catered to their body and preserved them from those *curanderos* and other healers who were *sin ciencia*. These themes have much greater implications and consequences for the thesis at large, that, despite literature which suggests a relatively uniform syncretic process in the development of medicine, Farfán shows historians a unique, if contrarian, perspective. Farfán created a context of “us versus them,” one in which he and his contemporaries battled “uneducated” healers for practitioner hegemony, and the treatments and the *materia medica* he used were

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<sup>38</sup> “Cosa es muy esperimentada entre los Indios de esta tierra...” Farfán, *Tratado Breve...*, pg. 364.

tailored specifically for European bodies, which were defined differently from Amerindians.

## **Chapter 2**

Throughout his work, Farfán painted a portrait of humoral conception of pain. This portrayal of pain showed how colonists perceived pain through Galeno-humoral theory, being so intrinsically European—that is, Old World—with certain implications for the way colonists perceived their bodies and how that affected their worldview. However, the most appropriate way to begin is to ask what pain is in general. Modern medicine supports that it is a negative nervous reaction to some form of stimuli (internal or external) that sends an electrical impulse from the site to the brain to relay the message. However, Farfán and his contemporary patients lacked this modern scientific explanation. Instead, pain was, to them, one of the signs of humoral imbalance and illness. Pain had a specific humoral pathology: that, as part of the system, it was a byproduct or conditioned result of humoral imbalance. For example, painful imbalance might be found when humors thickened and became viscous, which created a problem of humoral circulation.<sup>39</sup> In modern medicine, generally speaking, we recognize pain, from a relatively benign headache to chest pains, as an isolated event, separate from the overall condition of the body. However, within Farfán's pathology he showed that pain was a sign of the body's greater condition as a whole—that is, connected to the wider humoral flux in the body, which did not necessarily recognize anatomical boundaries. Most notably, Farfán and his readers were concerned with internal, unseen pain because of the pathological implication of wider bodily imbalance.

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<sup>39</sup> In a chapter on side pain (*dolor del costado*), Farfán writes of the types of bad blood that cause side pain—which we can guess to be roughly equivalent to kidney pain. Farfán's main culprits include thick, viscous blood, phlegmatic and choleric blood, and some melancholy blood. "Las causas del dolor de Costado verdadero son sangre gruesa y viscosa, sangre flematica y colerica, y sangre algo melancolica." Farfan, *Tratado Breve de Medicina*, pg. 24.



However, to start with, many descriptions of pain were described as localizations. In the chapter on side pain, there was a specific site from which the pain originated—"in a thin membrane a little thicker than two leaves of parchment...[The] membrane encompasses both sides of the breast, and is fastened to the ribs."<sup>40</sup> Despite the specificity, Farfán explained that many physicians confused this side pain with liver pain; and given the supposed lethality of the condition, confusion could have been deadly.<sup>41</sup> These descriptions of location were important in forming an overall diagnosis, as they often betrayed the nature of the humoral imbalance. In a chapter on dysentery (*camaras de sangre*, literally "bloody diarrhea"), where the patient felt pain informed the physician—or, in the case of Farfán's self-treating readership—where the sores were in the intestinal tract.<sup>42</sup> In a chapter on headaches, the location of the pain helped the physician discover the humoral pathology of the pain.<sup>43</sup> In this sense, pain provided a valuable GPS service that told the practitioner roughly where the affliction occurred—in the case of Farfán's understanding of dysentery, where the gastrointestinal sores were—which helped make a diagnosis, and in turn shaped the course of treatment tremendously.

Intensity of pain was also an important factor. These descriptions of intensity also furnished the practicing physician with more information upon which to base an

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<sup>40</sup> "El dolor de costado verdadero, tiene su asiento en vna Membrana delgada, poco mas guesa que dos vezes un pergamino. Esta Membrana ciñe los dos lados del Pecho, y esta pegada à las Costillas." Farfan, *Tratado Breve...*, pg. 23.

<sup>41</sup> "...[E]l dolor y la ynflamacion del Hgado no viene con punçadas y pelliscos, ni on el pulso ay dureza, ni tension, y estiramiento del lado.... el dolor del Hgado es mas baxo, casi en el estomago, y el del Costado es mas alto, y sobre las costillas." Farfan, *Tratado Breve...*, pgs. 24-25.

<sup>42</sup> "Conoçemos las tambien por el lugar del dolor, dóde estan las llagas." Farfan, *Tratado Breve...*, pgs. 36.

<sup>43</sup> "Si el dolor de cabeça viene de colera mezclada con la sangre, conoceremoslo en el dolor agudo, è intenso, y en unos latidos en la cabeça que agrauan mucho mas al enfermo." Farfán, *Tratado Breve...*, pg. 256.

informed decision regarding treatment. Though, interestingly enough, Farfán made little connection between magnitude of pain and the quantity of strength of prescription. In the prescription of various sedatives to provide relief for patients who lost sleep due to pain, the conditions of dose and regulation of consumption were based on the effectiveness of the first prescription (at nine o'clock at night a dram-and-a-half of the sedative compound *Requies magna*, or Great Rest—see below for further discussion), though there were not any variations based on the size (height and weight) of the patient.<sup>44</sup> Simply the presence of pain, particularly once it reached a threshold at which the infirmed could no longer bear it, provided the basis for prescribing therapeutic pain relief.<sup>45</sup>

On the other hand, what did the absence of any real description of pain mean? Farfán was fairly reliable in providing notice of various instances of pain (particular descriptions of intensity are somewhat rare—see below for further discussion), so what did it mean when he did not describe the painful symptoms or effects of particular disorders or therapies, respectively? In determining what pain was to Farfán and his contemporaries, it seems to mark a fairly stark demarcation between historical conceptions of visible pain and internal distress. In determining the particular stimuli that caused severe headaches, Farfán immediately ruled out the (acute) seriousness of external forces saying, “Of these causes some are internal and others are external,

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<sup>44</sup> “Si el dolor fuere táto, q quite el sueño, dële (las vezes q cóuega) à las nueve d la noche drama y media d requies Magna desatada é agua d Borrajas, ò dos onças de xaraue de Adormideras, ò de Nenuphar.” Farfán, *Tratado Breve...*, pgs. 69-70.

<sup>45</sup> “Si el dolor (como acontece) creciere tanto, que no pueda sufrirse, añadan al ungüento dicho, seis granos de opio molidos, y tibia unten los outages que duelen, y pongan sobre el una venda.” Farfán, *Tratado Breve...*, pg. 265.

[though the] latter are less dangerous than the former.”<sup>46</sup> However, the two most prominent examples come from the lack of any diagnostic description of pain in his chapter on Saint Anthony’s fire—or erysipelas (a modern English cognate to what Farfán used: *erisipela*), a painful skin infection that causes painful inflammation—and in his constant descriptions and prescriptions of (violent) purgations and bleedings little mention of any need or relevance of distress.

According to Farfán, the authors of the medical canon named three different kinds of Saint Anthony’s Fire (or, three different humoral pathologies): one an accumulation of hot blood, another of the sanguine humor mixed with the choleric, and the last of blood and phlegm.<sup>47</sup> One would assume that, within this, there might have been some explanation or description of the pain this caused the patient—at least to help in diagnosing—but, curiously, there was no such description. Particularly from the direction of diagnosis, what did this mean? Thus far, and well into the work, Farfán pinpointed the known locations of pain that signaled various disorders to help his practicing readership to make their own diagnoses with a justifiable degree of efficacy. So, it seems strange that he would not include this within his diagnostic appraisal. He conjured a certain context by the simple reference to the disorder—beyond the medieval familiarity with the affliction—of “fire,” but even as he did not use the colloquialism he missed giving this sort of context. And his readership, if they were not familiar with the condition, may not have had any sort of basis of understanding to

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<sup>46</sup> “Diueras causas son las de estos dolores, vnas son de humor caliente, y otras de humor frío y humido, y otras son de humor cliente y húmido. Y de estas causas vnas son interiores, y otras exteriores, y estas postreras só menos malas, que las primeras.” Farfán, *Tratado Breve...*, pg. 251.

<sup>47</sup> “Tres maneras de Erisipelas ponen los autores, vna de sangre muy encendida y caliente demasiado, otra de sangre y colera, y otra d ságre y alguna flema.” Farfán, *Tratado Breve...*, pg. 162.

compensate with. He clearly cited the condition's causes, though they were invisible to the naked eye. In describing colds and sinus problems (ostensibly not as painful or severe as Saint Anthony's Fire) he used more potent language to describe a burning sensation—which is to say, description that could have also been applied to the chapter on *erisipela*.<sup>48</sup> Farfán clearly referenced the bright red color of the inflammation and throughout the course of treatment prescribed therapeutics to combat the intense humoral heat that caused the disorder. However, he still never got closer to acknowledging the pain the afflicted suffered than warning practitioners that taking too much blood would cause the patient to suffer.<sup>49</sup> One might read, then, that Farfán and his patients were not concerned so much with outward manifestations of pain—they were uncovered and easily accessible to the senses (particularly to an outsider)—rather they were preoccupied with the meaning and foreboding of inner pain and distress, which were not immediately visible.

Roselyne Rey cites sixteenth-century French philosopher Michel de Montaigne's *Essais* and his hand in the creation of the individual self—a private, inner-identity—and she muses over this new, frank introspection and its relationship with individuals' experiences with pain.<sup>50</sup> For practitioners and patients, those outer manifestations of

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<sup>48</sup> “Quádo el Cadarro y Romadizo, viené de humores calidos, d mas de los accidétes de calétura, de dolor de cabeça y de cuerpo, lo que el enfermo purga por las narizes, es tan caliente q las abrasa y quema como fuego.” Farfán, *Tratado Breve...*, pgs. 128-129.

<sup>49</sup> “Si la Erisipela da é el rostro, sangren al que la tiene luego al principio de la vena de todo el cuerpo, y de ábos braços, y vayan sacando poca sagre, por q si se hazé muchas, ságrias aya virtud, qué [the patient] sufra.” Farfán, *Tratado Breve...*, pgs. 164-165.

<sup>50</sup> “Such a conviction [in expressing pain] is based on a clear demarcation between what belongs to one's fellow man, *i.e.* that which may be “shared out” or “revealed,” and that which belongs strictly to the individual self. This distinction, illustrated in the shift in autobiographical styles, ultimately relegated personal physical pain—a subject which Montaigne had thoroughly explored—to the private inner world; it became concealed all the more insofar as it was exposed to public scrutiny for a time, however briefly and cautiously.” Roselyne Rey, *The History of Pain* (Cambridge, MA: Harvard University Press, 1995), pg. 69.

pain left nothing to be imagined, and may have, in a way, reassured them, that the painful symptom was exposed and easily recognizable (though it still did not provide the patient any physical relief). But unseen pain meant diving into a murky world of diagnosis and treatment; there were still humoral workings inside the body hidden from the naked eye, but outward manifestations of imbalance left little to be imagined (or so it seems in this case) and provided a clear path for treatment. This idea that what was already visible was thus easier to treat fell directly within the rational element of traditional (European) Galenic practice. The famed Arabic physician and philosopher Avicenna posited that if a physician knew the “science” of medicine—if he were well versed in the doctrines of his esteemed antecedents—he would be amply prepared to diagnose and prescribe treatment.<sup>51</sup> For example, if a physician observed a patient suffering from humorally “hot” apostemes—a pus-filled abscess—he would know that the course of treatment would be to mitigate their humoral heat. Galenic medicine idealized that, through knowledge and observation a physician could work efficiently to diagnose and treat. However, observational skill was not easily reconciled with internal medicine. Rey writes, “Reading between the lines of what is said or left unsaid, it seems that the pain associated with an illness or wound was much more distressing for the one afflicted than the actual disorder itself....”<sup>52</sup> So, then, because of the directly visible manifestation of pain and painful symptoms in his chapter on Saint Anthony’s Fire, perhaps Farfán (and subsequently, his patients) did not feel much pressure to include

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<sup>51</sup> This is particularly interesting in examining the competing dogmas of medieval medicine: medicine as a learned “science” versus medicine as a skillfully-practiced “art,” and the balance of rationality between the two. See Wesley Davis, “Arnau de Vilanova and the Medieval Debate of Medicine as Science Versus Medicine as Art, An Examination of Theory and Practice in Search of the ‘Perfect Physician’” (2015, Unpublished) for further discussion. (Avicenna is also extremely relevant to the European context owing to the fact that his *Canon* was co-opted into Latin (Western European) medical dogma.)

<sup>52</sup> Rey, *The History of Pain*, pg. 70.

them; rather, the internal undoings of health (and their symptomatic pains) were more noteworthy.

Of course, the use of purgatives and bleeding—following Farfán’s direction, almost exclusively by cutting particular veins or regions of the body to drain bad blood, rather than applying leeches—was common in humoral medicine (a large part of its popular culture black legend). So, did physicians and practitioners simply gloss over the pain caused by these purges of harmful humors? From this point of view, and in a similar vein as the absence of pain description, it appears so. Because each illness had a pathological root in humoral imbalance, part of each regimen to achieve health included some sort of purgative—as will be discussed in the next chapter, the most common of which were *caña fistula*, *matlaliztic* root, and *mechoacan* root (the latter two most often being used when *caña fistula* was unavailable). There were a few specific references to those that might be afraid to use certain purgatives or the distress a particular purge (or too much of one) might cause a patient, however it did not provide any other alternative.<sup>53</sup> So, this begs the question: what did it mean that these concessions were left out of this sort of contextualization? Obviously, purgatives and bleedings were staples in humoral medicine, so they may have been normalized in that manner. And, in a way, how was it different from a modern patient’s experience? Many medical procedures (spanning from pedestrian regularities to extraordinary circumstances) put the patient in some form of discomfort, but are they not for the common good—the realization of a prognosis, or a return to health? This seems to be the most easily

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<sup>53</sup> “Y si le paresciere al que le cura, que conuienen mas sangrias, hagalas sin temor, que haran mucho prouecho.” Farfán, *Tratado Breve...*, pg. 172.  
See note 8.

explainable route—at least, one that runs parallel to a modern concern—that such pain or discomfort was simply an unfortunate by-product of a procedure that moved in a positive direction toward health and recovery. Farfán wrote that if bleedings did not necessarily cure the illness, but they seemed to help alleviate some of the patient's discomfort, then the acting practitioner should pursue a secondary course of purgation.<sup>54</sup> In another instance, he went so far as to say that if the first round of bleedings did not cure the patient then the practitioner should bleed them again!<sup>55</sup>

However, there is an alternate way to address this: focusing more on the physician's role as a perpetrator of painful acts. In her book, *The Body in Pain*, Elaine Scarry describes a torturer's process in achieving results—using pain as the means for reaching a particular goal.<sup>56</sup> How does the landscape change if it is turned on its ear? What if we think about the physician, in a way, as a torturer? Obviously, the end goals are different, but the painful probing of the body, psychologically, creates a similar persona. In television and film, how many children—and adults, even—are afraid to go to the dentist because of the discomfort and distress such examinations cause them? Again, the above quote from Farfán alluded to this, which gives us a window into which we can examine the concerns of the patient. He said to his patient, after they had been bled with good results, that they should go even further, to be subjected to more bleedings, and that it would be better for them, despite any fears or concerns they

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<sup>54</sup> "Si có las sangrias no cessa el dolor, aunque se aliue algo, es indicio y señal, q ay otros humores mesclados con la sangre. Entonces es necesario purgar al éfermo, y para esto tome estos xaraues quatro dias arreo." Farfán, *Tratado Breve...*, pg. 254.

<sup>55</sup> "La cura se hara, como la que dixe arriba, y si con las sangrias el dolor fuere creciendo, y es mucho, hagá vna sangria mas de la vena Cephalica, que el la de la cabeça. Pueden sacar hasta quatro óças de sangre ò cinco. Y no duden en hazer esta sangria, que es muy prouechosa, y assi lo manda Galeno. Y auiso, que d no la osar hazer, he visto hazerse postema, y echarla por las narizes có mucho daño del enfermo." Farfán, *Tratado Breve...*, pgs. 256-257.

<sup>56</sup> Elaine Scarry, *The Body In Pain* (New York: Oxford University Press, 1985), pgs. 28-45.

might have. This played into the patient's investment in the humoral system: that illness (and pain) was caused by the imbalance of the humors, sometimes in the form of corrupted blood, and the necessary, logical treatment was to rid the body of it. But, on the other hand, beyond how much the patient trusted the system—or at least bought into it for lack of any (acceptable) alternative—it showed the doubts some (perhaps, even, many) patients may have had about continuing such courses of treatment, and it is intriguing to think just how many patients, as they were self-administering, would, indeed, keep going—a question that depends on just how compelling and convincing Farfán was to his patients.

Similarly, Farfán recommended particularly uncomfortable procedures—ones that, if reader-practitioners were dedicated, they would have had to perform on themselves in the absence of a physician. The most notable of these comes from cases in which a fleshy growth (*carnosidad*) obstructed the urinary tract and prevented the passage of urine. To confirm such a diagnosis, Farfán instructed his patients to probe their urethra with a small, greased candlestick (*candelilla*). He wrote,

To know if there is a fleshy growth in the urethra, [that one cannot] urinate, because, other than these growths, there are many [things] which arrest the [passage of] urine. And so it is necessary to insert the small, greased candle [to probe the urethra for such growths]. And if (having entered a bit—or, a couple inches) it stops, it is a signal that the obstruction is the urethra. And they know that from the tip of the member to the bladder is only a couple inches.<sup>57</sup>

These types of (self-) examinations, then, would have simply been an end to justify a means—though a reader practicing this would certainly have to steel themselves before

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<sup>57</sup> “Para saber si ay carnosidad é la via de la orina, no basta, no poder orinar, que sin carnosidades se detiene muchas vezes la orina. Y assi es necessario meter la cnadelilla vntada. Y si-(hauiendo entrado vn palmo) se detiene; es señal q en la via esta la causa d no orinar. Y sepá que desde el principio de el miembro hasta la bexiga no ay mas de un palmo y cuatro dedos.” Farfan, *Tratado Breve...*, pg. 205.



braving their examination because it would be difficult enough to prepare oneself to allow another person to perform this, let alone doing it themselves.

### Pain and Discomfort Accommodation

At times, Farfán was content to manage pain as a symptom alongside curing the disorder as a whole. Particularly in treating indigestion and ancillary pain in cases of dysentery, a large portion of treatment revolved around comforting the stomach—separate from indigestion in the sense that Galenic medicine dictated that humoral imbalance was the cause of indigestion, which could largely be cured by modifying regimen, while also leaving room to treat literal stomach pain as a separate entity. However, the most interesting of these instances concerned the (regular) use of sleeping aids—some in the form of tablets. He stated that sleep was essential for patients suffering from dysentery, and subsequently prescribed several different sedatives to give his patients relief.<sup>58</sup>

However, that Farfán was using sleeping pills to treat patient discomfort—via treating lack of sleep for those so harassed by their condition—was not the only important issue at hand because there was a long history of sedatives and opioids, rather that this was likely the first recorded prescription of opioid sedatives in the New World, too.<sup>59</sup> As discussed above (and see Chapter 3, pgs. 9-10) there was already an

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<sup>58</sup> “En esta éfermedad el sueño es muy necesario, tanto: que el que en ella durmiere, puede tener esperonça de salud. Quando faltare el sueño, den al enfermo à las nueue de la noche vna drama de Philonio Romano desatada en agua de Llanté. Si có esta cantidad no duermiere, denle la noche é siguite à las ocho drama y media. La requies magna es mas segura, y puedéla dar cada dos dias, y cada día, y puedé dar hasta dos dramas. Los primeros dias, den al enfermo dos onças de xaraue de Adormiederas, y tome la vna onça à las ocho de la noche y si có ella no durmiere, déle la otra onça a las nueue.” Farfan, *Tratado Breve...*, pg. 43.

<sup>59</sup> Roselyne Rey notes medieval physician Guy de Chauliac’s familiarity with the pharmacologic genre (specifically citing opium, mandragora root, nightshade, henbane, and poppy). Rey, *The History of Pain*, pg. 46.

established tradition of using *Requies Magna* (and thus, opioids), but this was perhaps the earliest New World iteration of that. And the reason that this is so remarkable is that, as Everett and Gabra point out in their article, “The Pharmacology of Medieval Sedatives: The ‘Great Rest’ of the *Antidotarium Nicolai*,” according to the prescriptive metric established in the *Antidotarium Nicolai* there was an optimal dose that resembled modern doses. In this way, Farfán used *Requies Magna* and the dose of opium with a degree of efficacy similar to the modern standard.<sup>60</sup> The quote above illustrated the necessity for sleep in particular illnesses, and within that there was a subtle admission that the patient was suffering, which gives some insight into the apparent pressure to accommodate and to make the patient as comfortable as possible. In another section, Farfán wrote, “If the pain is so strong that it prevents sleep, give [the sufferer] (those times that [the pain] comes) at nine at night a dram and a half of *Requies Magna*.”<sup>61</sup>

It is very obvious, then, that Farfán felt a considerable amount of pressure, either as a healer or from his patients, to make those suffering more comfortable—though one still has to recognize the discomfort caused by the required purgings. It is difficult to discern which of those two appear more likely. On one hand the general ethos of the book, and his professed intention to write a book for those without access to a university-trained physician, lent itself to a healer who felt his patients’ pain and hoped

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Hildegard of Bingen notes some experience with using poppy as a sedative saying, “When its seed is eaten, it brings sleep and prevents prurigo,” and noting that it has no qualities to bring a patient to health. Hildegard of Bingen, *Hildegard’s Healing Plants: From her Medieval Classic ‘Physica,’* translated by Bruce Hozeski (Boston: Beacon Press, 2001), pg. 89.

<sup>60</sup> Nicholas Everett and Martino Gabra, “The Pharmacology of Medieval Sedatives: The ‘Great Rest’ of the *Antidotarium Nicolai*,” *Journal of Ethnopharmacology* 155 (2014), pg. 443.

<sup>61</sup> “Si el dolor fuere táto, q quite el sueño, dële (las vezes q cóuega) à las nueve d la noche drama y media d requies Magna.” Farfan, *Tratado Breve...*, pgs. 69-70.

to act as an agent in assuaging that discomfort. Though, on the other hand, he certainly appeared comfortable prescribing regular bleedings and violent purgings, as required by his understanding of pathology and healing. This, in itself proves a counterpoint, that, like many physicians (modern and historic), he may have viewed the pain caused in the course of treatment as collateral damage. Though he would not have wanted his patients to suffer—ostensibly—he most likely would have justified such treatments as being for the ultimate restoration of health and thus, corporal balance. On the other hand, it is possible that he faced considerable pressure from his patients to give them some relief from their suffering.<sup>62</sup> Everyone has experienced the terror of being locked in a dark room with one's pain without any means of escaping or diverting one's attention that the pain might be ignored; and this trial is doubly trying in the long hours of the night. Because Farfán clearly had experience in prescribing *Requies Magna*, along with other sedatives, it seems more likely that Farfán was quickly conceding dosages and timetables rather than incurring the suffering patient's wrath.

The general historiography of the history of pain focuses intently on the conception of pain as a bitter form of divine retribution; however, there is little in Farfán's work to support that. Rather Farfán's writing supports pain as a rational physiological reaction to bodily imbalance. There were religious invocations in the work—as one would expect in a medical work from the time period, particularly one written by an Augustinian—but there was no implication that moral insufficiency was the root cause of illness (neither generally nor specifically). In the chapter on dysentery,

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<sup>62</sup> In the first of two chapters (ostensibly) about severe headaches and migraines, Farfán wrote, "Si llaman al medico, quieren, que en llegádo les quite el dolor en vna hora. Y no reparen, que es menester mas tiempo, para curarlas del mal, que ha que padescen muchos años." Farfán, *Tratado Breve...*, pg. 251.

he recommended that physicians have their patients confess because the condition was so dangerous—especially so in New Spain.<sup>63</sup> He even went so far as to beg physicians to confess their deteriorating patients—with a hint at the pseudo-legal/moral imperative to do so.<sup>64</sup> Within that there was an implication that divine intervention was the prime course of treatment—again, within exactly what one would expect from a pre-modern text written by a physician-priest—but nothing hinted that Farfán believed that the disease or disorder was a form of divine retribution. This follows Roselyne Rey's diagnosis of the early modern psyche in her book, *The History of Pain*, that because the early modern world was so bleak—citing the numerous wars, politico-religious upheavals, and famines that plagued Europe (and its colonial holdings)—that its inhabitants simply resigned themselves to the fact that bad things were going to happen no matter what.<sup>65</sup> As such, if we read the quote from Farfán through this lens, he implicitly recognized the illness as an eventuality—at the very least, mortality, especially given the patient risk in the Americas—and insisted that the patient absolve him or herself from their sins in a bid for divine intercession, that their life might be spared by God (in conjunction with a rational course of treatment).

As a book written to give lay peoples the general lay of the land, one can assume that: first, Farfán spoke to generally sensibilities about pain; and second, he spoke a language of pain that his readership would already be familiar with. So, whereas Rey goes on to cite St. Theresa of Avila and her message that the personal experience of pain

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<sup>63</sup> "La cura primera y el primer remedio que deue hazer al enfermo el Medico, es: mandar le confessar, por ser tá peligrosas las camaras, y mucho mas é esta nueva España." Farfan, *Tratado Breve...*, pg. 37.

<sup>64</sup> "Y pido por amor de Dios à los medicos, que manden con tiempo, confessar à sus enfermos, que es grauisima culpa, y muy gran lastima, verlos cada dia morir sin los sacramentos." Farfán, *Tratado Breve...*, pg. 309.

<sup>65</sup> Rey, *The History of Pain*, pgs. 50-53.

was a trial from God that the sinner might grow closer to the Father, there seems to be a divergence between modern conception and historical reality.<sup>66</sup> However, as a singular source, Farfán only showed a limited sphere of influence. That being said, apart from the intense imperative for physicians to ensure that their patients were given the last sacraments if it appeared that their situation was rapidly deteriorating and frequent invocations of the grace and blessing of God, it seems significant that Farfán kept enough distance between the two spheres of religion and pathology. Particularly as a text written for potential patients—and as it has been read to provide insight into the doctor-patient relationship (and the concerns and conceptions involved)—it is curious that, despite being a one-way dialogue, he diverted from the traditional (modern) idea of early modern fatalism. Instead, Farfán showed a rather empirical understanding of pain, one in which pain was the body's reaction to a natural phenomenon: the inevitable unbalancing of the humors and the resultant onset of a condition.

In his work, Farfán never personified pain in any way as anything supernatural—and outside of the semi-regular admonishments that patients suffering from particularly dangerous illnesses confess their sins and make themselves right with God in case the worst (if not the most likely) outcome was reached—and he maintained a professional sense of rationality. Instead, though, the vocabulary of describing pain seemed, at best, thin. Elaine Scarry discusses this in her book, *The Body in Pain*, though in reference to our modern inability to express pain.<sup>67</sup> Thinking about immediate

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<sup>66</sup> "Whether the apprenticeship of pain be a test on the road to salvation in the hope of eternal life or an opportunity to offer one's suffering to God as proof of one's love, as was the case for mystic writers such as St. John of the Cross or St. Teresa of Avila who were contemporaries, the relationship between Christian faith and pain is a spiritualized and sublimated one which deliberately turns its back on innate spontaneity and the voice of nature." Roselyne Rey, *The History of Pain*, pg. 55.

<sup>67</sup> Elaine Scarry, *The Body in Pain* (New York: University of Oxford Press, 1985), pgs. 3-11.

responses to pain, it destroys all capacity to express oneself—outside of cries and exclamations. Pain, then, in the English language, is communicated using a lexicon of short, powerful words and analogies—and, more abstractly, on numbered scales. Farfán wrote that for some sufferers of severe headaches they, “Render a man almost dead...that he cannot speak, that they wish that you do not speak to them,” or that they, “cannot open their eyes and see the clear light of day,” and they pray fervently to God that he might alleviate some of their pain.<sup>68</sup> It is impossible to adequately convey pain—it occurs within a vacuum, often out of sight of any bystanders or onlookers that look immediately at the sufferer who yelps at the first twinge of pain. Unlike happiness or sadness, visceral sensations that can be invoked by something so indirect as the sight of a puppy or the death of one’s favorite characters in a television show, the description of pain cannot adequately convey that which the sufferer—well—suffers. When someone describes their pain to another person, the outsider does not feel exactly the dreadful sensation that the sufferer did, rather the best they can aspire to (or the greatest understanding the sufferer can hope for) is empathy, or sympathy. And, however insensitive, many sufferers’ experiences are cast in the shadow of doubt because of this singular experience. Frank Vertosick mentions some of the responses he has received as a sufferer of migraines—asking why he cannot, proverbially, “play through the pain.”<sup>69</sup>

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<sup>68</sup> “Algunos dolores de cabeça vienen con tanta furia, que deriban a vn hóbre con muerto, y ponélo tal, que no habla, ni quiere que le hablé, ni oyr vn golpe. Otros dolores causan (à los que los padescé) no abrir los ojos, ni ver la claridad del dia.... Y à trueco de parecer bié vn dia, y plega à Dios que no parescan mas mal, à los ojos de su criador, quieren padescer toda su vida excessiuos dolores.” Farfán, *Tratado Breve...*, pg. 251. It is also worth noting, in reference to the above section of religion in Farfán’s work. I believe that these follow in the same vein as the invocations of divine intervention mentioned earlier, that the particular crying out to God was meant as a cry for help rather than pleading that God release the afflicted from punishment.

<sup>69</sup> “The great Pittsburgh hockey player Mario Lemieux endured recurring bouts of severe back spasms during his career, the result of a degenerating disc and a postoperative spine infection. During one

Indeed, when one says their skin feels like it is on fire, or, more viscerally [and a favorite of my father's], it feels as if an "ice pick" has been stabbed through their cortex, it can be hard to determine where truthful expression ends and hyperbole begins.

Doctors, too, are impotent in coaxing sufficient description out of their patient that might help make a diagnosis. Only relatively recently was the McGill Pain Questionnaire formulated to give patients an efficiently detailed means by which to express their agony. A 1939 study compiled a list of 44 words to describe pain, and split them into five different categories: "(a) [The] temporal course of the experience, e.g., palpitating, throbbing; (b) the temporal course of the experience, e.g., penetrating, radiating; (c) its fusion or integration with pressure, e.g., heavy, pressing; (d) its affective coloring, e.g., savage, ugly; and (e) purely qualitative attributes e.g., achy, bright...prickling, and quick."<sup>70</sup> A later study, using the previous findings, as well as mining clinical textbooks for more examples, came up with 102 total words with which people describe their experience of pain—of the great wealth of words in the English language [a language particularly apt for description and artistic embellishment] there are only 102 words its speakers have found to describe their experiences. The questionnaire itself was arranged to create a level field for a diverse range of patients and sufferers to describe (and in a way, quantify) their experience.

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particularly bad episode—when he couldn't bend over to tie his shoes let alone play a contact sport—a young television reporter asked him why he couldn't simply 'play through' his pain. I'll never forget the incredulous look on the All-Star center's normally stoic face as he replied indignantly: 'I just can't.' I knew exactly what Lemieux was thinking. Unless you've endured the pain, you simply cannot understand. Migraine sufferers...know Lemieux's indignation. There are some pains that even the strongest of us cannot 'play through.'" Frank Vertosick, *Why We Hurt*, pg. 18.

<sup>70</sup> Ronald Melzack, "The McGill Pain Questionnaire," in *Pain Measurement and Assessment* edited by Ronald Melzack (New York: Raven Press, 1984), pg. 41.

Farfán, on the other hand, had no equivalency for the McGill Pain Questionnaire. Rather, pain was only occasionally described with pointed detail—for example, stabbing pain ([*dolor que*] *viene con punçadas y peliscos*)—but more often was referred to rather obliquely, simply citing the location of the pain as an indicator that, indeed, pain in that location was a sign of a particular illness.<sup>71</sup> So, it seems that sufferers' general incapacity to describe their pain has been a theme across many centuries. People are only able to demonstrate the weakest boundaries of what they feel underneath their skin, without any opportunity to expound or further illustrate. The generality of this blanket description shows a sort of shared experience of pain, that all patients should have, at some point or another in their lives, felt pain in, say, their abdomen. So, when Farfán mentioned that abdominal pain was a symptom of a particular condition, then it was up to the patient to determine whether or not they understood, and if they were in accord with Farfán (giving themselves authorization to go on with the prescribed course of treatment).

In his book *Why We Hurt: The Natural History of Pain*, surgeon Frank Vertosick describes his lifelong struggle with migraine headaches. While in college, he developed an extreme mode of warding off the pain (apart from self-medicating with twenty-five aspirin—"Two pills never worked, so why not try half a bottle?"): forcing himself to vomit, which at times gave him ten minutes of relief, and immediately trying to go to sleep, which usually helped to fight off the attack.<sup>72</sup> He describes his relief at meeting another person who shared his pain-fighting strategy, a hairdresser, whose retina

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<sup>71</sup> See note 3.

<sup>72</sup> Frank Vertosick, Jr., *Why We Hurt: The Natural History of Pain* (New York: Harcourt Press, 2000), pgs. 24-25.



detached in her right eye during one such purging and was subsequently blind in that eye as a result.<sup>73</sup> These are but a few illustrations of the colorful (if hazardous) ways in which laypeople—though, apparently, at times, physicians too—self-medicate. This is to illustrate one corner of the history of pain and pain management that Farfán cannot help its scholars illuminate. Whereas there exist in elastic space and time these anecdotes of self-treatment (and the unique forms it often takes), Farfán only offers a strictly constructed source, one that only gives the official side of the story, the bona fide prescription of a trained physician. Outside of what he recommended, there is no telling of what patients might have done, or the lengths to which they might have gone to treat or manage their pain; each of those stories, as one can be sure, are as colorful as their modern counterparts. And beginning with making historic-modern comparisons, it is important to note that there were early conceptions of overdose and its consequences. Humoral medicine was constantly mediated by its commitment to moderation, and there was a firm, ever-present belief that indulging too much in one thing or another would inevitably bring an imbalance in the humors.

Pain was a symptom of bodily imbalance (and in a way, an overarching indicator of unison—when the inner workings of the body (health, or equilibrium) fell out of balance, pain was a conditioned, symptomatic response to change). It was a beast with no name—with little concrete description of its manifestations—but it was important as a sort of GPS beacon that helped guide practitioners, through their patients' accounts and experiences of pain, to (subjectively) successful diagnosis. Outward manifestations of pain did little to serve this purpose, and as a result were neglected in the narrative.

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<sup>73</sup> Ibid. pgs. 25-26.

Instead, Farfán and his patients were concerned with the innermost experiences of pain, for those were the most telling, particularly from a diagnostic standpoint. As such, Farfán spent a great deal of time and energy accommodating and compensating the innermost experiences of pain. In this, Farfán was buying into an explicitly European ideal, according to Roselyne Rey, of the relative ownership of pain. As a source, Farfán painted an interesting picture of how colonists—assuming the identity of his readership—conceived of pain and how that pain was treated.

### **Chapter 3**

The third, and ultimate, purpose of this thesis is to address the *materia medica* used in Farfán's work. Farfán was a Spanish physician practicing in the New World. Looking at and thinking critically about the *materia medica* available and what ordinary people and medical practitioners used raises interesting questions about Spanish bioprospecting and colonialism—and adds a certain piquant flavor to Farfán's character (both as a physician, and as a physician trying to sell a book). Though Farfán's altruistic motive to put forth a book accessible and helpful to those who did not have regular access to a trained physician is discussed above, the purpose of this chapter is to focus on the things he, time and again, pulled the reader aside to tell what he might prescribe to those who did not have access to a pharmacist. In addition to these asides, nearly all of what Farfán prescribed was informed directly by the Old World tradition. That, of course, makes sense. However, the use of the Old World *materia medica* had interesting implications for the biocolonization of the New World.

In Farfán's time, bioexploration of the New World was relatively just beginning.<sup>74</sup> To balance that world of the unknown against the known, cultural exchange had introduced a certain number of distinctly American medicaments, which Farfán dispensed with confidence and with understanding. The most popular of these recommendations was his endorsement of cacao as a suitable therapeutic (a first for

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<sup>74</sup> From 1571-1577, Francisco Hernández, a Spanish physician, embarked on a study of American flora commissioned by Philip II. In the course of his work, he catalogued over three thousand plant species—though Farfán was not afraid to disagree with him (see Ch. 3, no. 15). An “abstract” of Hernández' work was published in the 1580s, and his magnum opus, the *Rerum medicarum Novae Hispaniae thesaurus*, was published in Rome in 1651. John Carter Brown Library, “Atlantic *Materia Medica*,” [http://www.brown.edu/Facilities/John\\_Carter\\_Brown\\_Library/exhibitions/atlanticmedica/index.html](http://www.brown.edu/Facilities/John_Carter_Brown_Library/exhibitions/atlanticmedica/index.html).

Europeans).<sup>75</sup> However, beyond this, Farfán made a number of claims, contending that he had used certain therapeutics extensively, and assured his readers with unwavering confidence that there was no reason to fear their use—in one way, evidence to support the contention that his intended audience was most likely European or European-descended peoples living in the New World, people who might feel more comfortable trusting the New World pharmacopeia if it were spoon-fed to them by a classical, European physician. Ultimately, Farfán was indeed a Spanish physician practicing in the New World; but, by virtue of time, place, and trajectory, became a bridge between two worlds.

Though Farfán has been cited as the first physician to introduce the therapeutic uses of cocoa to the Old World, his prescription was brief, and he provided little explanation of what it did to the body. In his chapter on amenorrhea (*La Retención de la Regla*) he recommended preparations of cocoa, saying, “Cocoa is better, eaten and drunk, that you will not miss your menstrual cycle.”<sup>76</sup> On the other hand, “Many get tired of chocolate because it is a drink made of many things [humorally] contrary, thick, and difficult to digest.”<sup>77</sup> Though, in giving his therapeutic prescription of cocoa, Farfán showed his readers that he had an implicit understanding of how it functioned within the *materia medica* and that he felt comfortable prescribing cocoa to his patients.

His claims partly came from first-hand accounts and patient interactions. Farfán was therefore open to experimenting and learning new, innovative ways to treat his

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<sup>75</sup> United States National Library of Medicine, “Milagro de todos los días: Imágenes Médicas en Ex-Votos,” <https://www.nlm.nih.gov/exhibition/exvotos/guidesespanol.html>; John Carter Brown Library, “Atlantic *Materia Medica*.”

<sup>76</sup> “Mayorméte el cacao comido y bebido, y este no les ha de faltar.” Farfan, *Breve Tratado...*, pg. 72.

<sup>77</sup> “Otras se hartá de Chocolate, q es vna bebida hecha de muchas cosas entresi muy cótrarias, gruesas, y malas de digerir.” Farfan, *Breve Tratado...*, pgs. 72-73.

patients. In an article on his descriptions of facial reconstruction in Farfán's book on surgery, *Tratado Breve de Anathomia y Chirurgia*, modern surgeons Fernanda Chico-Ponce de León, Fernando Ortiz-Monasterio, and Matteo Tutino note that, despite his classical education—and the adherence to the dictums of the ancients that entailed—Farfán stayed well abreast of contemporary surgical techniques.<sup>78</sup> The authors contend that Farfán “must have been aware of the techniques of forehead and arm flaps for nasal reconstruction used by the Branco family of barber-surgeons from Sicily and by the Vianeos from Calabria,” in addition to the knowledge of surgery gained from the classical texts.<sup>79</sup> So, Farfán was also not afraid to prescribe and treat contrary to his education.<sup>80</sup> Though he practiced as a European physician, there is ample evidence to support that Farfán was judicious in choosing course of treatment (rather than relying exclusively on dogma) and open to using New World therapeutics when he felt the confidence to do so.

If we are going to track the *materia medica* and pass judgement as to whether or not Farfán's pharmacopeia was more heavily European or American we must define, at least generally, what the *materia medica* contained. Given the nature of humoral medicine, there was tremendous crossover between general medicaments and commonly accepted foodstuffs. The spectrum ranged from herbs and roots mixed

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<sup>78</sup> Fernanda Chico-Ponce de León, Fernando Ortiz-Monasterio, and Matteo Tutino, “The Dawn of Plastic Surgery in Mexico: XVIth Century,” *Plastic and Reconstructive Surgery* May 2003; 111(6), pg. 2029.

<sup>79</sup> Ibid.

<sup>80</sup> “Con dos melenzinas ò tres destas se uera el remedio y prouecho; y desta manera las he curado muchas vezes â gloria y hórre de Dios. Y es verdad q hasta q yo puse é practica esta manera de cura, ninnguno vsaua de ella, por que no reparauá, en q los mas de camaras se moriá por no curar las llagas.” Farfan, *Breve Tratado...*, pg. 48; “A algunos les parsece cosa nueua y mala hazer sangrias â los q tiené camaras d sangre: y no mirá al corrimiêto de los humores calidos, que van a las tripas, ni al dolor y llagas de ellas. Sepan que no ay remedio que mas presto, ni mejor los euacue y diuierta, que el de las sâgrias; por que có ellas euacuamos todos los humores.” Farfan, *Breve Tratado...*, pg. 39.

together with water or honey to make a complex medicine (therapeutics composed of several different elements), to the traditional (if not downright ubiquitous) chicken soup to heal the body (and soul). In researching the individual elements of the pharmacopeia, attention has been paid to whether or not those that Farfán prescribed were native to the Old World or the New World—or if there were species native to both. At this point, the question arises: What role did biocolonialism play in Spanish medicine practiced in America? Given the contention mentioned above that, as an institution that largely trained Spanish subjects born in the New World, the Faculty of Medicine at the historic University of Mexico taught or practiced a medicine that was slightly different—perhaps a form in which the syncretic process had progressed further than it may have in Europe—and that, as such, the *materia medica* its graduates used may have been, as in other aspects, more American.<sup>81</sup> Some of the items Farfán prescribed were native to Spain and the Mediterranean. So, in a book written with the express purpose that those without access to physicians can treat themselves with therapeutics that should be easy to find, what does this mean? If somehow these items were unsuited to the climate of the New World, it suggests that there existed some trade for them. Assuming that they were suited to the New World environment, where were grown, and in what quantities? Were they grown in individual gardens? What about *boticarios*—did they have their own commercial gardens?

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<sup>81</sup> However, it should be noted that the most impressive compilation of Amerindian medicine, the *Libellus de Medicinalibus Indorum Herbis*, compiled in 1552, was relatively unknown in New Spain as it was sent to Spain shortly after it was written, and it did not return to Mexico until Pope John Paul II offered it as a gift during his 1990 visit to Mexico. Bruce Byland notes in the introduction to a recent printing of the codex that the original manuscript shows considerable European influence—notably, the four Galenic humours—despite earlier scholarship that suggested a purely Mexican identity. See William Gates, *An Aztec Herbal: The Classic Codex of 1552* (Mineola, NY: Dover Publications, 2000), pgs. iii-x.

Brian Cowan, in a chapter on the development of culinary sensibilities and trends in Europe as a result of New World discoveries, suggests that European residents in the New World—in this case, those who saw themselves more as Spaniards than anything else—crafted their own cuisine, co-opting New World alimentary elements into the traditional European substrate.<sup>82</sup> By the same token, though, Europeans were consciously able to maintain a certain high level of European-ness in their cuisine.<sup>83</sup> Medicine, I would argue, followed this same pattern. By and large, the constituent components of Farfán's prescribed *materia medica* were European, punctuated by periodic (in some cases, regular) use of American products and therapeutics. But which elements were exclusive to the Old World (and thus had to be traded for), which Old World elements could be cultivated in the New World, and for which Old World elements existed a suitable American substitute. This is further complicated by the confusion of some American items for those of the Old World. Columbus, for example, confused a number of the plants he found in Cuba for the spices he was looking for in what he thought was Japan—thinking the agave he found was actually aloe wood, the gumbo-limbo tree the mastic tree, and American plums Indian myrobolans.<sup>84</sup>

One of the greatest problems in co-opting American elements into the Galenic humoral system was figuring out the complexions and qualities of each item that was discovered. In the case of a cognate it would not be so difficult to rationalize the

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<sup>82</sup> Though beyond the time period covered in this work, he notes British colonists in North America's adoption of corn into their diet (citing dishes like succotash that found their way onto the popular menu). Brian Cowan, "New Worlds, New Tastes: Food Fashions after the Renaissance," in *Food: The History of Taste*, edited by Paul Freedman (Berkeley: University of California Press, 2007).

<sup>83</sup> Cowan cites the replication of Old World feasts in Virginian aristocratic houses. *Ibid.*

<sup>84</sup> Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven: Yale University Press, 2008), pg. 210.

addition of the item—for instance, adding American ferns to those previously recognized.<sup>85</sup> But items that appeared particularly alien to Europeans had a markedly more difficult time gaining traction in the Old World—potatoes and tomatoes were the most quintessential examples. Particularly as foodstuffs, they did not appear especially appealing at first because once they were rationalized into the system they were supposedly part of the nightshade family of plants.<sup>86</sup> It was not until the eighteenth century that potatoes or tomatoes found any great appeal in Europe—when people discovered how cost-effective potatoes were in sustaining large populations and European states began to encourage their mass cultivation. Separately, Italians especially began to introduce tomato-based sauces were introduced into their cuisine. These two plants’ noticeable absence from Farfán seems to support this early skepticism.<sup>87</sup>

However, colonizers quickly adapted New World elements that were similar or cognates to Old World therapeutics or foodstuffs into the traditional substrate—there was even a racial implication to this process (see page below for further discussion). Items that shared particular qualities with European elements were automatically less foreign than the new flora that conquerors discovered in the Americas; and, as such, Europeans would have been more likely to choose the familiar therapeutic over the “foreign” American element that bore no Old World resemblance. Farfán writes of the *cocolmecatl* root’s great similarity to a root he was familiar with as a child growing up in

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<sup>85</sup> It should be noted that this is a random example, chosen only knowing that there are species of fern native to the New and Old Worlds; Farfán makes no use of ferns in his work.

<sup>86</sup> Brian Cowan, “New Worlds, New Tastes,” pg. 213.

<sup>87</sup> Manioc, with the potato, another important American starch, is also nowhere to be found in Farfán’s work.



Seville. He believed that it was an exact cognate to the “China root”—so-called, at least insofar as Farfán believed, because the Portuguese brought it to the Peninsula from India in 1544, where it had been originally been imported from China—and ascribed to the *cocolmecatl* root all of the same attributes and medicinal uses of the “China root.” Simply because he was familiar with it (or at least thought he was)—and Farfán’s prescription of other New World therapeutics all hinge upon his familiarity with it—Farfán felt comfortable using it in his medical practice.<sup>88</sup> Farfán assured his patients that they should trust his recommendation because, he attested, on basis of experience, the root would bring them health.<sup>89</sup>

Hints of biocolonialism in Farfán’s work make the theme a central pillar in this thesis. As has already been mentioned, there would be some difficulty in accurately determining if New World elements would be used out of convenience, or if those of the Old World would be imported or cultivated.<sup>90</sup> However, Sophie Coe, in her book,

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<sup>88</sup> "Entre muchas plantas medicinales que el doctor Fráncisco Hernandez Prothomedico hallo en esta nueva España, quando el Rey nuestro señor Don Phelippe (que Dios guarde muchos años) le enbio â ella, para buscarlas, y escriuii de ellas todas las virtudes que tuuiessen. Y entre las que hallo, fue vna rayz de vna planta que llaman Cocolmecatl, y por otro nóbre Olcatatzan. Escriuiio della muchas y muy grandes virtudes, y comparòla â vna de las especies de la Exmilax, a quien todos llamamos çarçaparrilla. Y verdaderamente que conforme â lo que el escriuiio d ella (a mi parsecer esta rayz del Cocolmecatl es la que los Portugueses traxeron de la India año de mill y quinientos y quarenta y quatro, y llamaró la China, tomando el nombre de donde la trayan. Yo la vi muchas vezes en Sevilla, y la tuue en mis manos, y acuerdome de lo que digo (aunque era pequeño) como si fuera ahora. De esta rayz de la China escriuió autores graves, y entre ellos Amato Lusitano medico digno de no tener en poco. Y lo que ellos dixeró, dixo tambien el doctor Francisco Hernández del Cocolmecatl, y el color, la hechura, y calidades de la vna dan a la otra. Tengo entendido, que es toda vna cosa, y que como nuestro bué Dios la crio aqulla, tambié la crio aca, como lo vemos. Por que esta rayz del Cocolmecatl es como la de las Cañas de Castilla, es ñudosa, y con vnas puntas como puas, es gruesa y larga." Farfán, *Tratado Breve...*, pgs. 417-18; "Todo lo dicho tiene la rayz de la China, y en los effectos tábien como el Cocolmecatl." Ibid., 419; "Esto todo, que he dicho, haze la rayz de la china, y assi digo, que es la de aca como ella. Y si el Doctor Francisco Hernandes no lo dixo, fue por no acordarse quando escriuiio de ella, ò por parescerle, que aca no la podia hauer." Ibid.

<sup>89</sup> "Si la tomaré, fiense de mi y crean me, que tendran có ella mas salud, porque la he experimentado." Farfán *Tratado Breve...*, pg. 422.

<sup>90</sup> Sophie Coe uses the New World *Phaseolus* as an example of a substitution for an Old World element: "[New World beans] looked, cooked, and tasted like the pulses which were on every Spanish ship’s manifest.... The New World *Phaseolus* beans not only could be used like the Old World ones but also were

*America's First Cuisines*, cites the rapid success that bananas experienced in the New World. An Old World import, they were so prolific that many early European writers mistook them for New World natives. And that the Portuguese introduced their corms to the New World in the early sixteenth century—presumably after their successful colonization of the Canary Islands—suggests that there was specific intent to introduce the species to the New World for some level of production to accommodate human consumption.<sup>91</sup> She also mentions an example of domestication by chance. The bottle gourd, of African origin, somehow made its way to the American continental mass prior to the arrival of Europeans, and can be counted as the first New World domestication.<sup>92</sup> However, these instances confuse the narrative of biocolonialism, as there is no implication that there was a particular conscious impetus to import or cultivate Old World crops in the New World.

Similarly, other Spanish imports did unexpectedly well—that is, according to exaggerated reports from the New World. In attempts to cultivate European foodstuffs in the New World, Spanish agents reported back home that they reaped great bounties of produce in only a fraction of the time it took to grow crops in Europe—“[R]adishes, lettuce, and cabbages mature within fifteen days of planting, that melons and squash mature within thirty-six days, that vines produce grapes in a year, and that wheat...planted in early February, had ripened by mid-March.”<sup>93</sup> Rebecca Earle suggests that, in the larger contemporary narrative surrounding the suitability of the continent

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related to them, all being members of the family Leguminosae, subfamily Papilionoidae.” Sophie Coe, *America's First Cuisines* (Austin: University of Texas Press, 1994), pg. 28.

<sup>91</sup> Sophie Coe, *America's First Cuisines*, pg. 5. See also Alfred Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Westport, CT: Praeger Publishers, 2003), pg. 68.

<sup>92</sup> Sophie Coe, *America's First Cuisines*, pg. 7.

<sup>93</sup> Rebecca Earle, “‘If You Eat Their Food...’: Diets and Bodies in Early Colonial Spanish America,” *American Historical Review* June 2010, pg. 701. See note 46 for meta citation.

for colonization that the success of imported Old World crops was *de facto* confirmation that Europeans could thrive so far from native shores.<sup>94</sup>

The genesis of European exploration was firmly rooted in the pursuit of wealth. First, the Portuguese set about exploring the African coast so that they might find a more efficient way to reach India and circumvent the expense created by the Venetian monopoly in the Mediterranean.<sup>95</sup> The Spanish, on the other hand, were less concerned with establishing trading posts to displace specific powers in the market, and were more (if not exclusively) interested in acquiring more land. Perhaps this was a continuation of the conquest mindset that had ruled Spanish politics for centuries as the Kingdoms of Castile and Aragon (and earlier constituencies of the Christian kingdoms of the Iberian Peninsula—the Kingdoms of Leon and Asturias, and the Counties of Castile and Catalonia) battled Muslim occupiers to wrest back control of the Peninsula. The first Muslim army invaded Southern Spain in 711, quickly toppling the existing Visigothic kingdom and occupied territory in the Peninsula until the fateful year 1492. That year, Ferdinand and Isabel succeeded in expelling the last remaining Muslim—the Kingdom of Granada—Southeastern Spain. Of course, that was also the year Europeans encountered the New World and sustained concerted contact for the first time.

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<sup>94</sup> Ibid., pgs. 701-703. Crosby, *The Columbian Exchange*, pgs. 74-106 goes into great detail discussing the wild success of several Old World animals in the New World—among these, swine and horses. Crosby ascribes to their success one of the pillars of Spanish success in the New World; swine reproduced rapidly and provided conquistadors with a substantial, ambulatory food supply, and horses gave the conquerors both military and logistic advantages over Native Americans and made empire-building possible.

<sup>95</sup> See Chapter 8, “Finding the Realms of Spices: Portugal and Spain” in Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven: Yale University Press, 2008), pgs. 193-214 for a full discussion of Portugal’s calculated efforts to tap into the spice trade in Africa (in particular, trading with African Christians in modern-day Kenya) and India, and Spain’s conquest by chance.

Despite the less-concerted effort, at least compared to that of the Portuguese, their goal to win land did exclude money-making enterprises—Spanish history is replete with infamous characters who ventured to the New World in search of wealth, and conquistadors are often maligned in popular culture in this vein. Regardless of original intent, the Spanish crown was able to exploit its colonial holdings with great success. As Paul Freedman points out—and as much of the historiography surrounding the role of spices in the inspiration of European exploration purports—the search for spices drove the exploration machines of Europe. Columbus even believed he could bypass the Middle East and sail straight to Japan to tap into the Asian market. So, the first Spanish expedition was more equipped for trade than colonization, proved by the fact that the first contingency left in the New World was not properly provisioned to act as a colony, rather, seemingly, the crew was prepared for occupation as a trade post in a civilization with infrastructure to support them. However, it was Columbus' second expedition in 1493 that really began the process of colonizing, bringing with him "...seventeen ships, 1,200 men, and seeds and cuttings for the planting of wheat, chickpeas, melons, onions, radishes, salad greens, grape vines, sugar cane, and fruit stones for the founding of orchards."<sup>96</sup> Later, Hernán Cortés' expedition was specifically equipped to engage with and conquer what they found in the name of establishing new lands for Charles V in the New World. From that staging point, the Spanish were poised to make moves in the New World's most fertile grounds—that is, on the continent proper.

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<sup>96</sup> Crosby, *The Columbian Exchange*, pg. 67.

Alfred Crosby notes Spaniards' efforts to "Europeanize" the New World by establishing the triumvirate of Mediterranean alimentary tenets: wheat, oil, wine.<sup>97</sup> Though they were never able to reach a productive stasis, this plainly shows the colonizers' intentions to sculpt the New World into an image of the Old World. The cultivation of both wheat and wine had important social and religious implications, too, in the colonization of New World peoples (see below for further discussion). However, colonizers were not able to recreate their Old World ideal. Wheat could not be cultivated in every corner of empire, and olive trees were grown in the valleys of the continent's arid Pacific coast. Though a considerable export industry grew out of Peru, Mexican wine was notoriously bad. Farfán blamed New World wines for causing headaches and a myriad of other health problems because they were intensely hot and disturbed the humors.<sup>98</sup>

The near-immediate success and popularity of chocolate in Europe showed how eager colonizers were to showcase prizes taken from their expeditions in the colonies. These new elements perplexed and enchanted European elites simultaneously, as well as throwing the established order and knowledge of the natural world into chaos. From this, mercantile ambitions grew, and the bounds of what could be discovered seemed endless—see later: the search for El Dorado. Londa Schiebinger describes it eloquently, speaking of Europe's bioprospecting intentions, "The European search for new medicines was also fed by mercantilist efforts to make European countries

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<sup>97</sup> Crosby, *The Columbian Exchange*, pg. 73.

<sup>98</sup> "Y es verdad esta, que los vinos que se beben en las indias, son causa de tantos dolores de cabeça, de tantas reumas, y de hauer tátos gotosos, tantos dolores de ijadas y de riñones y de tantas piedras de riñones, por que como son tan calidos, no dexan humores quietos, ni estomago, que no estragué y corrompan." Farfán, *Tratado Breve...*, pg. 253.

pharmaceutically self-sufficient, thereby checking the flow of bullion to foreign countries and eventually creating positive trade surpluses.”<sup>99</sup>

However, despite that, there was a countertrend. While the Spaniards were certainly using the New World as a botanical wonderland to harvest new foodstuffs and therapeutics, Farfán’s *materia medica* shows that Spaniards were also importing Old World plants to “Europeanize” their American holdings—especially in New Spain—and taking active part in biocolonialism. The vast majority of the therapeutics—foodstuffs, simples (pure therapeutic substances), and complex medicines (a therapeutic concoction of more several simples)—Farfán prescribed were native to the Old World, which meant that those items either were imported (at great cost, and, presumably, with considerable anticipated loss of product in the colonies) or they were introduced into the colonies. Obviously, introduction seems the more likely of the two. Then, as Farfán professed to provide his readership with therapeutics easily available outside the realm of university-trained physicians (with additional contingencies for those who did not have access to the expertise of a *boticario* in making—and presumably vending—the therapeutics Farfán prescribed), it becomes even more likely that introduction is the key. Europeans certainly would have been more likely to recognize the items that Farfán prescribed—further evidence that his intended readers were self-identified Europeans in the New World—and may have even had experience tending to those items in a garden at home. So, in addition to settling Spaniards in the New World, there was a process of making their new home hospitably European—with those conscious concessions being made on such a level that it made practicing (or enjoying

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<sup>99</sup> Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World* (Cambridge, MA: Harvard University Press, 2004), pg. 73.

the benefits of) European humoral medicine possible in the furthest reaches of the empire.

As seen above, there was already a significant tradition of introduction in the New World, the large part of which was propelled by the European belief that American foods corrupted the European body. There was a widely held belief among the colonizers that the Amerindian peoples were descended from ancient Spaniards who immigrated to the New World, but through time, and through the “bad” food that they ate, those Spaniards gradually lost their natural, glorious choleric nature and descended to a phlegmatic complexion. Even from Columbus’ first voyage and the high rate of European fatality there were concerns about the fundamental differences between Old World and New World foodstuffs.<sup>100</sup> These differences came to inform an early racial philosophy that separated the colonizers from the colonized based on the foods that they ate.<sup>101</sup> To counteract this, then, Europeans began to import Old World foodstuffs that fit the colonizer’s lifestyle.

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<sup>100</sup> These conceptions also existed in regard to various regional cuisines. For example, English people traveling to Spain in the sixteenth century express the same trepidation about consuming “foreign” food as their Spanish counterparts did in the New World. Rebecca Earle, “*If You Eat Their Food...*,” pg. 695. And after all, how different is that today? There are some real concerns about consuming food abroad—particularly where public health and sanitation standards do not match a native of the developed world’s expectation—but many people (stereotypically, Americans) experience a similar fear, that “foreign” food is bad for them.

<sup>101</sup> This is Rebecca Earle’s thesis in her article “*If You Eat Their Food*’: Diets and Bodies in Early Colonial Spanish America.” She uses Jorge Cañizares-Esguerra’s thesis that New World intellectuals had constructed a racial theory—which defied the traditional European-Galenic characterization by astral influences and posited that Europeans and Indians were radically different both physically and mentally (for which there were important hegemonic and economic implications)—as early as the seventeenth century—about a century-and-a-half before the commonly accepted time period (the late-eighteenth century and during the scientific revolution). See: Rebecca Earle, “*If You Eat Their Food*’: Diets and Bodies in Early Colonial Spanish America” *American Historical Review* June 2010, pgs. 688-713; Rebecca Earle, *The Body of the Conquistador: Food, Race and the Colonial Experience in Spanish America, 1492-1700* (New York: Cambridge University Press, 2012), pgs. 156-187; Jorge Cañizares-Esguerra, *Nature, Empire, and Nation: Explorations of the History of Science in the Iberian World* (Stanford, CA: Stanford University Press, 2006), pgs. 64-96.

One of the most interesting instances was the importation of wheat to the New World. Wheat was, of course, a staple in the Old World, and the Eucharist was exclusively made from bread. However, Amerindian peoples largely subsisted on breads made from maize, manioc, and cassava, none of which Europeans accepted. Following the papal decree that maize could not be transubstantiated to take on the body of Christ through the Eucharist, the importation of wheat took on a particular religious importance. Wheat bread formed an important part of the European identity both as a dietary staple and as an integral part of the Catholic faith, into which Amerindians were to be indoctrinated and assimilated. There was a widespread effort on behalf of clergymen to help their native parishioners understand the importance of wheat bread in European society and its importance as a building block of the European identity—a Nahuatl version of the Lord’s Prayer was even translated to read “Give us Lord our daily maize tortilla” so as to get the point across.<sup>102</sup> Because corn was such an important staple in pre-Columbia culture, the intended effect, if condescending, was to show Native Americans the cognate importance of wheat in European societies—though not to imply that, as such, maize was an acceptable substitute, rather to underline the primacy of wheat and relate it to the importance of maize in their culture that they might understand wheat’s importance better. With wheat bread, Amerindians were encouraged by Europeans to adopt an Old World diet (largely composed of “good foods and substances such as lamb, chicken, turkey—though American—and ground beef, [wheat] bread, and wine, and other *nourishing* foods), though they quickly established a binary, taking high Amerindian mortality as a sign that the concept of

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<sup>102</sup> Gregorio García, *Orígen de los indios del Nuevo Mundo*, cited in Rebecca Earle, “If You Eat Their Food...,” pg. 693.



“good food” went both ways—that since food good to Amerindians may not be good for Europeans, good food to Europeans may not be good for Amerindians.<sup>103</sup>

Evidence suggests that, by 1600, wheat was available enough that, even though it could not be cultivated in every corner of the empire, one could obtain wheat bread if one had the financial means.<sup>104</sup> However, this created an economic binary that may have even had racial implications. Following what Rebecca Earle has revealed about colonists’ conceptions of how food constructed race, this implies that those who could not afford wheat bread, ethnically European though they might have been, would lose their ethno-“racial” identity and become Indians. Farfán even recognized the class binary, lamenting the poverty that rendered some only able to afford to eat “a tortilla and a little bit of beef.”<sup>105</sup>

Assimilating Amerindians into the gastronomic culture of the colonizers served two purposes: First, because Spaniards believed they were descended from Iberians who had lost their natural choleric complexion, reintroducing these foods to Amerindians would help them reclaim their lost cultural and racial identity. According to the Galenic-Hippocratic system, the body was a porous entity, easily shaped by the forces surrounding it—including both environment and food, which factored greatly into the historical debate over the identity of Amerindians. However, it was hazardous

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<sup>103</sup> García, *Origen de los indios del Nuevo Mundo* cited in Rebecca Earle, “If You Eat Their Food...,” pg. 693. Though turkey was native to the New World, Europeans likely accepted it in place of a myriad of other meats—particularly guinea pig—regularly enjoyed by Amerindians, which Europeans thought were “unclean” or “unfit.” Also, as a fowl, it would not have been so difficult a leap to incorporate into the diet—over guinea pig.

<sup>104</sup> Crosby, *The Columbian Exchange*, pg. 71.

<sup>105</sup> “Por la mucha necesidad que tienen, los que está (como otras vezes he dicho) apartados de los pueblos grâdes, y la grâde pobreza que muchos de los que en ellos y fuera de ellos tienen, pues ya â penas puedé comer vna tortilla, y vna poca de Vaca, me esfuerça y da animo, â tomarle mayor, para dar remedio â todas las calenturas.” Farfán, *Tratado Breve...*, pgs. 482-83. (Translation Note: “Tortilla” might also refer to *tortilla española*, an omelet traditionally consisting of potatoes and onions. In such a case, there are obviously no class implications.)

to reshape or reform the complexion, and so European physicians rationalized Amerindian mortality by opening the door to the possibility that Old World foods might not be good for Amerindians. Second, assimilation meant the creation of a civilized, Christian society—and, according to one contemporary writer, “So that they learn to love us [Spaniards] more.”<sup>106</sup> However (and particularly in the seventeenth century), the idea of undivided racial lines—or a completely assimilated Amerindian class—soured quickly.

This is all to move toward a broader point: that in addition to the introduction of foodstuffs for the health and welfare of European colonizers in the New World, Spaniards also made moves to import Old World medicine for the same reason. Now, there was a considerable overlap between what was considered therapeutic and what was considered foodstuff, but most of the herbs used in Farfán’s work were of Old World origin, and—unlike Coe’s example of the bottle gourd, which arrived from Africa to the New World by no apparent human impetus or intention—they were brought with specific intention to support colonizers.

Poppies were decidedly natives to the Old World. The Greeks were familiar with their sedative qualities, and recent evidence has shown that, while originally thought to be native to the Eastern Mediterranean, remains of a religious artifact containing intact capsules of opium poppy found in the caves of southern Spain, which date back to around 5500 B.C., show that the plant was also native to the Western Mediterranean.<sup>107</sup> In his work, Farfán prescribed sedatives in several instances, including a compound known as *Requies Magna*, or “Great Rest.” The compound itself comes from the

<sup>106</sup> Juan de Solórzano Pereira, *Gobierno del Perú*, cited in Rebecca Earle, “If You Eat Their Food...,” pg. 710.

<sup>107</sup> Arthur Gibson, “The Pernicious Opium Poppy,” botgard.ucla.edu.

*Antidotarium Nicolai*, written by the Salernitan physician Nicholas of Salerno in the twelfth century, and, as Drs. Everett and Gabra conclude, contained a quantity of opium similar to that found in modern doses.<sup>108</sup> Nicholas prescribed that it be used for patients suffering from acute fevers, and that it should be used to induce sleep in suffering patients.<sup>109</sup> It also seems that ancient physicians dispensed it semi-frequently, and were fairly skilled in prescribing dosages that sufficiently sedated patients without reaching a lethal threshold—or even a dangerous level of toxicity.<sup>110</sup> Farfán even used it with daily precision, prescribing doses and times at which to take it: “If the pain is so strong that it prevents sleep, give [the sufferer] (those times that [the pain] comes) at nine at night a dram and a half of *Requies Magna*.”<sup>111</sup> So Farfán, it seems, used opium (via *Requies Magna*) with the same facility that Nicholas and his medieval readership did. From this it can be assumed that poppies were grown in Spain around this time.<sup>112</sup>

It is important to establish the record of a purgative Farfán prescribed time and again, *cañafistula*, because there is some uncertainty as to which of two geographically distinct plants Farfán referred to. First, it is possible that it referred to the scientific name, *Cassia fistula*, or the “Golden Shower Tree,” which was native to India and Southern Asia, and was used actively in Ayurvedic and European Galenic medicine as a

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<sup>108</sup> Nicholas Everett and Martino Gabra, “The Pharmacology of Medieval Sedatives: The ‘Great Rest’ of the *Antidotarium Nicolai*,” *Journal of Ethnopharmacology* 155 (2014), pg.

<sup>109</sup> “Give with violet syrup to patients suffering acute fever; we can give it to them intermittently mixes with honey. It is given to those suffering quartan fevers with warm wine when the fever is acute or severe, and to these suffering tertian fever with warm water or syrup.” *Ibid.*, pg. 444.

<sup>110</sup> *Ibid.*

<sup>111</sup> “Si el dolor fuere táto, q quite el sueño, dële (las vezes q cóuega) à las nueve d la noche drama y media d requies Magna.” Farfan, *Breve Tratado...*, pgs. 69-70.

<sup>112</sup> The recent (2014) spike in poppy production in Mexico is evidence, at the very least, that they can grow there. Nick Miroff, “Tracing the U.S. heroin surge back south of the border as Mexican cannabis output falls,” *Washington Post*, April 6, 2014, World edition.

purgative.<sup>113</sup> On the other hand, it may have referred to *Albizia inundata*, also known in Spanish as *cañafístula*, and was native to South America—though not specifically to Mexico.<sup>114</sup> However, there is a significant difference between the scenarios these possibilities create. First, if *cañafístula* referred to *Cassia fistula* it clarifies the narrative of biocolonialism. According to the International Legume Database and Information Service (ILDIS) listing, *Cassia fistula* is native to south-central Asia (India, Sri Lanka, and Malaysia), but there are geographic references that suggest that it was also endemic to Central and South America.<sup>115</sup> That being said, without any historical reference to importation and naturalization, it is hard to determine whether this is a true example of biocolonialism, or if it is more recent, because of the confusion here over which plant it refers to. Its historic use as a purgative is promising, though, and, historically, the East and West obviously kept in close enough contact that there was an active spice trade. This trade, by nature of sheer distance and Venetian monopoly in the Mediterranean, was expensive for Western European markets like Spain's, let alone in colonial holdings on the other side of the Atlantic. And the way Farfán wrote about *cañafístula* seems to suggest a commodity resource—"If one cannot find *cañafístula*, use matlatzic root, or mechoacan root."<sup>116</sup> Even if it were imported during the time period with specific

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<sup>113</sup> International Legume Database and Information Service, "*Cassia fistula*," on ildis.org. "Ayurvedic Action[;] *Kusthaghna*[—]Alleviates skin diseases[;] *Kandughna*[—]Stops itching[;] *Recana*[—]Laxative[;] *Sramsanottama*[—]The best bowel cleanser[;] *Jvaraghna*[—]Reduces fevers[;] *Anulomana*[—]Directs *vatu* downwards[;] *Raktapitta*[—]Stops Bleeding[;]" Sebastian Pole, *Ayurvedic Medicine: The Principles of Traditional Practice* (Edinburgh: Churchill Livingstone, 2006), pg. 129.

<sup>114</sup> Native to Argentina, Brazil, and Uruguay. International Legume Database and Information Service, "*Albizia inundata*," on ildis.org.

<sup>115</sup> International Legume Database and Information Service, "*Cassia fistula*," on ildis.org.

<sup>116</sup> "Si no ay Cañafistola, ni Matlatliztic, tome del Mechoacan...." Farfán, *Tratado Breve...*, pg. 133; "Los q no tiené botica, purguése có quatro onças d caña fistola; y el peso de un tomín de poluos de la rayz de Matlalitzic, q son muy seguros. Y si no los huuire, seá de los de Mechoacá. Y quádo no ay mas q el Mechoacá tomen el peso de ocho tomines de los poluos y a las quatro de la tarde los echen é mojo en agua cozida có Ceuada ò con Orocuz y a las quatro de la mañana los cuelen y esprimá bié y eché al agua un

intention of cultivating enough to supply the pharmacological-botanical market to accommodate the demands of colonial physicians and *boticarios*, it does not exclude it from a commodity status. As a tree, it would naturally take longer to cultivate and grow than a perennial, and depending on the part of the tree used (Farfán offered no guidance, simply referencing the name) eventually that resource would be depleted—be it seasonal fruit or roots.<sup>117</sup>

On the other hand, if Farfán intended to prescribe *Albizia inundata* it confirms Londa Schiebinger's argument about bioprospecting. Modern botanical literature mentions the confusion (or name-borrowing, depending on context), too. G.P. Lewis notes in his book, *Legumes of Bahia*, that the vernacular name *cañafistula* is frequently used among several species of *Cassia*.<sup>118</sup> However, it seems unlikely, given there is little evidence to suggest that *Albizia inundata* had the same purgative potential as *Cassia fistula*—save oblique references that it contains the psychoactive agent known as DMT.<sup>119</sup> Some authors have argued it was used as an admixture in *ayahuasca*, the hallucinogenic drink consumed by many South American tribes for its psychoactive effects.<sup>120</sup> *Ayahuasca* itself causes (violent) purgation, but the ethos—at least the modern one, if not focused on miracle cures—seems far more geared toward the proverbial “trip” and mental clarity than any specific physically purgative experience—

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poco de Açucar y beba la." Ibid., pgs. 56-57; "Y si no la [cañafistola] tiene, con dos tomines de peso de poluos del Matlatlitzic ò có los poluos de Mechoacan en infusió, como muchas vezes he dicho." Ibid., pg. 166; "Quien no alcançare Cañafistola, tome ocho tomines de peso de poluos de Mechoacan...." Ibid., pg. 158.

<sup>117</sup> Sebastian Pole's *Ayurvedic Medicine* offers no elucidation, like Farfán, only citing the use of the plant in medicine (along with the uses listed in note 22).

<sup>118</sup> G.P. Lewis, *Legumes of Bahia* (Kew: Royal Botanical Gardens, Kew), pg. 164.

<sup>119</sup> Michael Wink and Ben-Erik Van Wyk, *Mind-Altering and Poisonous Plants of the World: A Scientifically Accurate Guide to 1,200 Toxic and Intoxicating Plants* (Portland, OR: Timber Press, 2008), pg. 255.

<sup>120</sup> See note 44.

akin to a juice cleanse (another modern phenomenon), for example.<sup>121</sup> Despite this, *ayahuasca* has only recently gained a broad following—as Conor Creighton says, “in yoga circles...[and] the ‘Berlin meditation scene’”—while *Cassia fistula* had a [legitimate] therapeutic following in Ayurvedic medicine, which, given the continued (if difficult) trade between India and Western Europe, could have easily found its way into the plethora of purgatives prescribed by “Western” practitioners—even more likely given Portugal’s trade (or pseudo-colonization) with India and proximity to Spain back home.

However, the majority of the therapeutics Farfán prescribed were not as sexy as opiates, or controversial as *cañafistula*. Most were items that readers would likely find in their gardens, or, if not there, with ease in the village or town they lived in. But, most importantly, the overwhelming majority of elements were of Old World origin—or they were the cognate of an Old World item, which made them palatable to colonists and Farfán’s readership. Most of these were simple foodstuffs and herbs, like sorrel, borage, lettuce, barley, anise, spearmint, fennel, parsley, and cinnamon.<sup>122</sup> Continuing with diet, he also recommended many Old World meats for their temperate disposition—

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<sup>121</sup> See these articles for varying accounts of experiences (with an eye toward the purgative element): Conor Creighton, “Ayahuasca Will Make You Cry, Vomit, and Feel Amazing,” on Vice.com.

<http://www.vice.com/read/ayahuasca-will-make-you-cry-vomit-and-feel-amazing-918>

Britany Robinson, “‘It was crazy sh\*t’: Ayahuasca, vomiting and my search for a spiritual experience,” on Salon.com.

[http://www.salon.com/2015/02/15/it\\_was\\_crazy\\_sht\\_ayahuasca\\_vomiting\\_and\\_my\\_search\\_for\\_a\\_spiritual\\_experience/](http://www.salon.com/2015/02/15/it_was_crazy_sht_ayahuasca_vomiting_and_my_search_for_a_spiritual_experience/)

<sup>122</sup> Sorrel—*azederas*, Farfán, *Tratado Breve...*, pg. 12, Hildegard von Bingen, *Hildegard’s Healing Plants*, pg. 38; borage—*borrajas*, Ibid., pg. 13, Ibid., pg. 168; lettuce—*lechuga*, Ibid., Ibid., pg. 84; barley—*ceuada*, Ibid., pg. 14, Ibid., pg. 7; anise—*anis*, Ibid., pg. 15, Minta Collins, *Medieval Herbals: The Illustrative Traditions* (London: The British Library, 2000), pg. 86; spearmint—*yeruabuena*, Ibid., pg. 18, Hildegard von Bingen, *Hildegard’s Healing Plants*, pg. 74; fennel—*hinojo*, Ibid., pg. 19, Ibid., pg. 63; parsley—*perexil*, Ibid., pg. 22, Ibid., pg. 67; cinnamon—*canela*, Ibid., pg. 13, Ibid., pg. 24.

including chicken, goat, and veal.<sup>123</sup> He recommended that his readers only eat fresh, salted fish when they could not obtain other good meats, but this probably had more to do with historical concerns about the sourcing of fish rather than a general discomfort with New World varieties.<sup>124</sup> Farfán's prescriptions were, generally, varied preparations and prescriptions of items that made up a diverse, expansive (European) common core.

Farfán's work shows historians the apotheosis of the European colonizing trend to bend colonized lands and attempt to mold them into natural extensions of the Old World. Rebecca Earle shows how Spanish insecurities about the nutritional value of New World foodstuffs led to the mass importation of Old World foods to colonial holdings, and from there how those differences between what the colonizers and the colonized ate formed early New World conceptions of race and biological difference. Farfán adds another element to that story, though. In addition to the Old World foodstuffs that colonizers believed they needed to survive, medicines and therapeutics formed an important part of the pharmacological safety net, which may have had similar implications for race and identity. In reality, many Europeans consumed American foodstuffs with ease, and the gastronomic landscape presented a more hybridized model than the strict construction of a European palette abroad necessarily

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<sup>123</sup> "Los Pollos, Pollas, Cabrito, y Ternera son muy buenos, y no alcançando esto, es bueno vn poco de Carnero manido." Ibid., pgs. 12-13.

<sup>124</sup> "Puede comer algun Pescado fresco, que lo ayan salado vn dia antes." Ibid., pg. 13. Both Arnau de Vilanova in the thirteenth century and Lluís Alcanyís in the fifteenth century were concerned with the consumption of fish, *vis-à-vis* the freshness of said fish. In particular, Alcanyís was concerned that fish sourced close to a city or town would be corrupted by local water pollution: "E les riberes encars que sien bones nos peixquen prop les ciutats, per les unmundicies quey decorren." This shows that, at the very least, there was precedent for particular health concerns regarding the consumption of fish—Arnau in a treatise on health written for the King of Aragón, and Alcanyís on preservation from the plague. Arnau de Vilanova, *Obres Catalanes de Arnaldus de Villanova*, v. 2 (Barcelona: Editorial Barcino, 1947), pgs 242-244; Lluís Alcanyís, *Regiment preservatiu e curatiu de la pestilència* (Valencia, 1490), pg. 6.

suggested through biocolonialism. However, these conceptions are important in shaping a clearer picture of Europeans' perceived identity in the New World. Farfán, though he acted as a bioprospecting agent, or at least advertised it in his work, showed the extent of contemporary biocolonialism in his work. The New World therapeutics he included in his work had some base European likeness—as in the case of the so-called “China root”—or he claimed to have enough experience with them that he trusted using a “foreign” substance. In this, we find Farfán practiced a particularly European medicine, though where there was evidence enough that a New World therapeutic was acceptable—or equal—to an Old World substance he felt comfortable using it.



## Conclusion

Despite the fact that Farfán and his work are most well known now for their role in introducing New World therapeutics to Old World audiences, Farfán shows a more nuanced picture of medicine in New Spain than the assumed sharing of cultures imposed by popular understanding. Farfán's target audience was largely European or of European origin, and his work was meant to address concerns about rural readers' access to adequate healthcare—and the fact that his book went through three editions tells historians that his readers shared that concern with Farfán and his contemporaries who were engaged in a war as old as learned medicine itself: the struggle for practitioner hegemony between the educated mainstream and the unorthodox periphery. *Tratado Breve de Medicina* shows historians, then, that there were already conceptions of intrinsic difference between colonists and New World natives—though Rebecca Earle shows that those conceptions (constructed around diet) were more fluid than the strict racial constructions beginning in the nineteenth century. This is all to show the distinct identities of medicine in New Spain, and, despite the popular opinion concerning the existence of a so-called *medicina novohispana*, that there was a distinct European medicine.

Implications of European identity are perhaps less apparent in the conceptions of pain represented in Farfán's work. However, the most obvious evidence is their basis in the humoral understanding of the body. Imbalance in the humors brought about pain, however, in most cases, patients had to endure painful or uncomfortable purgings of various and sundry sorts before one could embark on the road to recovery. In this way, practitioners took on a strange (if, perhaps, familiar) role as a torturer. We recognize

such a character as using pain to achieve a particular outcome—though in this case, contrary to the expectation of most painful experiences, the goal in mind was the restoration of the patient’s health. Farfán also showed how contemporary patients approached pain relief. Because modern pharmaceuticals like ibuprofen did not exist, most of the ways in which Farfán managed pain came in the form of sedatives. Farfán described how many of his patients begged that he give them some form of pain relief; so, when the pain was great enough that the patient lost sleep because of it, Farfán prescribed various sedatives—the most common of which was *requies magna*, which modern studies suggest could be prescribed in similar dosages to modern opiates to achieve the same (or a similar) effect. Pain, for Farfán’s patients, was an intensely insular experience. It came from deep within them, beneath skin and tissue through which the practitioner’s eye could not see, and that murky unknown frightened both Farfán and his patients.

Finally, Farfán’s *materia medica* showed a remarkable majority of the items used were of European or some other Old World origin. In this way, Farfán shows historians the applied pharmacological effect of biocolonialism in the New World. Beginning with Columbus’ second voyage in 1493, Spaniards had one overarching goal: to recreate Europe in the Americas. This transatlantic translation of European culture to the New World affected every aspect of society, even down to the food colonizers ate and the medicine its healers practiced. According to Rebecca Earle, colonizers were concerned about the effects a New World diet would have on their diet, so they imported Old World foods to maintain their traditional diet. Because foodstuffs were often interchangeable as therapeutic elements, this had great implications for medicine

practiced in the New World, too. Despite the veritable pharmacological wealth the New World had to offer, Europeans were cautious not to stray outside of the traditional, accepted *materia medica*. Little by little, Europeans in the New World integrated new therapeutics into the accepted Old World *materia medica*. However, that process was calculated and discerning. Throughout his work, most often when prescribing New World therapeutics, Farfán assured his readers—most likely Europeans, or descended from Europeans—that he had extensive experience with the element in question, and that, as a European with a vast knowledge of medicine, he approved it for use. There were even cases in which New World therapeutics, because they appeared similar to or were perceived to have the same complexion and qualities of a known therapeutic—that is to say, most likely, European—were easily integrated into the *materia medica* on that basis—that they appeared familiar. The implication of that, and the caution with which European readers appear to have approached New World therapeutics, suggests a basis for the preservation of an inherently Old World medicine that was only gradually, and selectively, pervaded by New World therapeutics. This also shows the success of biocolonialism in that respect: Europeans, in accommodating themselves, were, to some degree, able to reconstruct their therapeutic tradition in an entirely alien place.

Farfán, then, was not necessarily the perfect projection of “Mexican” medicine as has been supposed. Instead, the evidence presented shows, projected through Farfán’s work, that leading up to the seventeenth century the Old World tradition of medicine held strong, and that, within the misrepresentation of the mainstream, there was little of an inherently “Mexican” medicine to be found. Farfán, in crossing the Atlantic and

practicing medicine in the New World—and gaining a tremendous amount of experience practicing with various therapeutic elements—remained true to the European system of medicine.

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